

# GOMOS Level 2 Daily Report

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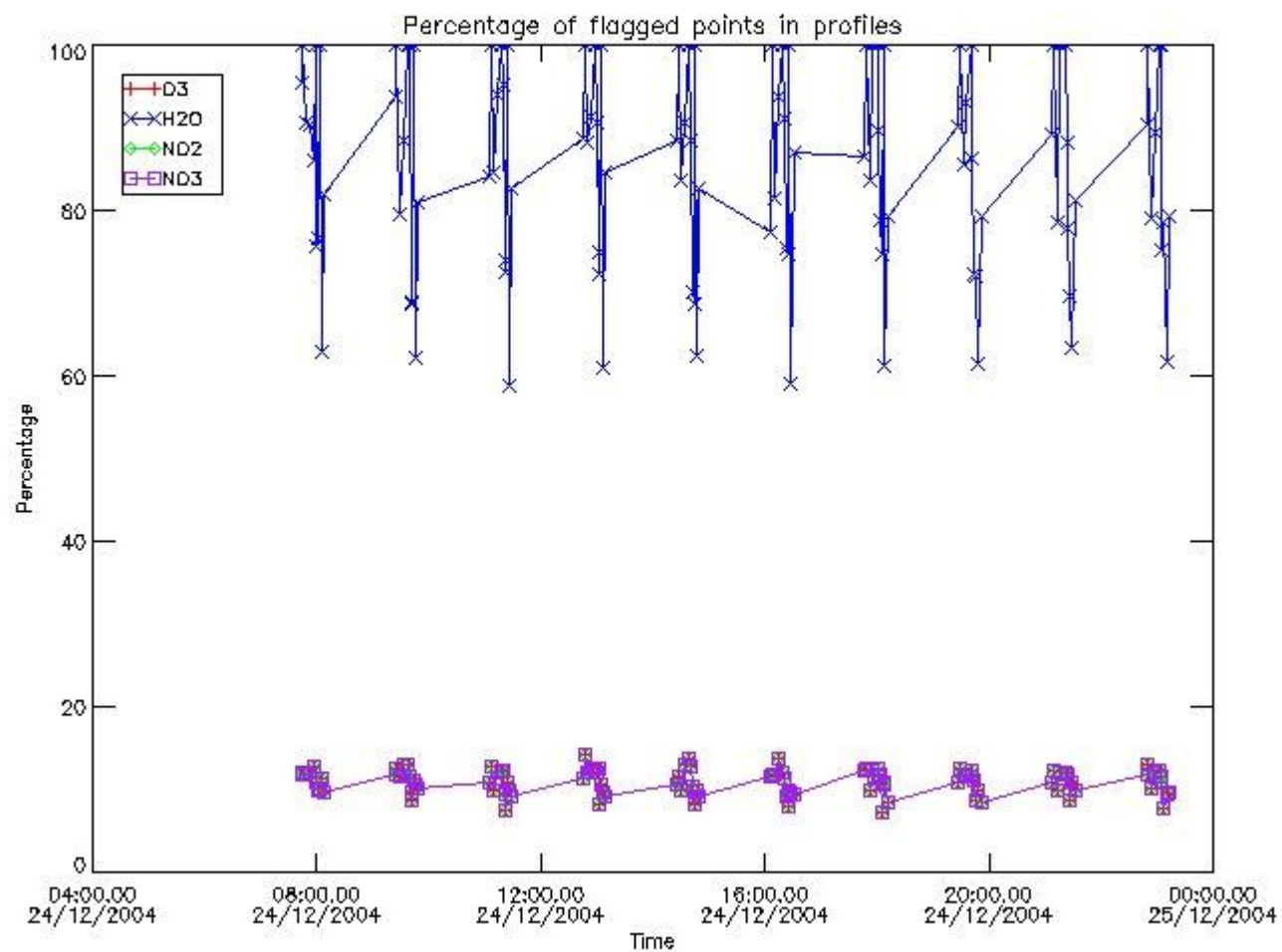


338	GOM_NL__2PRFIN20041224_232530_000000462033_00159_14742_7539.N1	24-DEC-2004 23:25:30	Straylight	46.000	30	46Eps Ori	1.6940	30000.	92	14742	No
339	GOM_NL__2PRFIN20041224_232814_000000542033_00159_14742_7540.N1	24-DEC-2004 23:28:14	Twilight_stray	54.000	14	58Alp Ori	0.87000	3000.0	108	14742	No
340	GOM_NL__2PRFIN20041224_233041_000000522033_00159_14742_7541.N1	24-DEC-2004 23:30:41	Bright	52.000	13	87Alp Tau	0.86700	3800.0	104	14742	No
341	GOM_NL__2PRFIN20041224_233216_000000432033_00159_14742_7542.N1	24-DEC-2004 23:32:16	Bright	42.500	176	23Zet Tau	3.0200	22000.	85	14742	No
342	GOM_NL__2PRFIN20041224_233419_000000452033_00159_14742_7543.N1	24-DEC-2004 23:34:19	Bright	45.000	28	12Bet Tau	1.6500	15200.	90	14742	No
343	GOM_NL__2PRFIN20041224_233724_000000392033_00159_14742_7544.N1	24-DEC-2004 23:37:24	Bright	38.500	149	45Eps Per	2.8880	30000.	77	14742	No
344	GOM_NL__2PRFIN20041224_233917_000000462033_00159_14742_7545.N1	24-DEC-2004 23:39:17	Bright	46.000	6	13Alp Aur	0.080000	3400.0	92	14742	No
345	GOM_NL__2PRFIN20041224_234141_000000382033_00159_14742_7546.N1	24-DEC-2004 23:41:41	Bright	38.000	160	23Gam Per	2.9300	4700.0	76	14742	No
346	GOM_NL__2PRFIN20041224_234520_000000392033_00159_14742_7547.N1	24-DEC-2004 23:45:20	Bright	39.000	110	37Del Cas	2.6780	8900.0	78	14742	No
347	GOM_NL__2PRFIN20041224_235113_000000382033_00159_14742_7548.N1	24-DEC-2004 23:51:13	Bright	38.000	49	1Alp UMi	1.9900	6300.0	76	14742	No
348	GOM_NL__2PRFIN20041224_235549_000000362033_00159_14742_7549.N1	24-DEC-2004 23:55:49	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	14742	No
349	GOM_NL__2PRFIN20041224_235926_000000372033_00159_14742_7550.N1	24-DEC-2004 23:59:26	Bright	37.000	119	14Eta Dra	2.7270	4700.0	74	14742	No

### 3. Quality information per product

In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

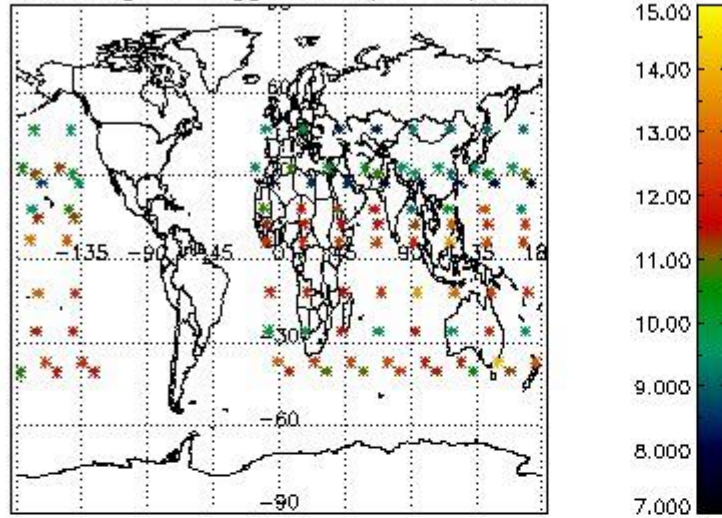
#### 3.1 Plot quality information per product (time dependant)



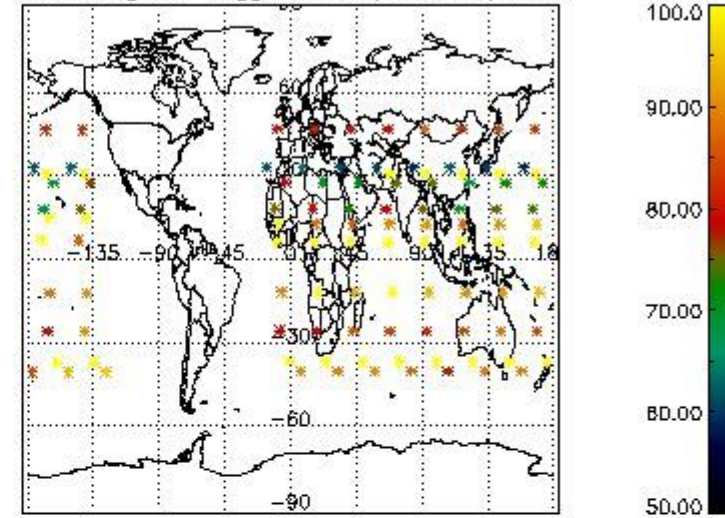
#### 3.2 Plot quality information per product (world map)



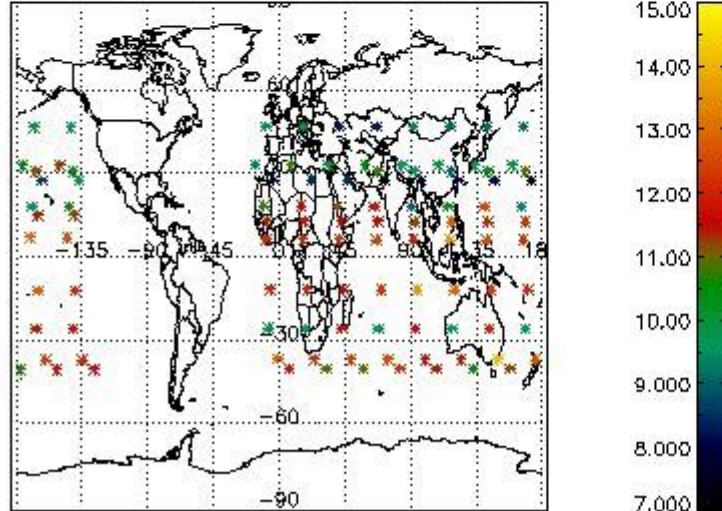
Percentage of flagged data per O3 profile



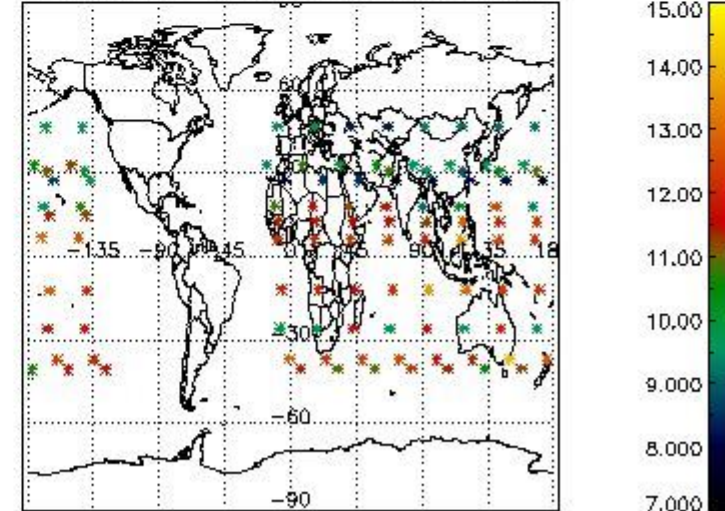
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

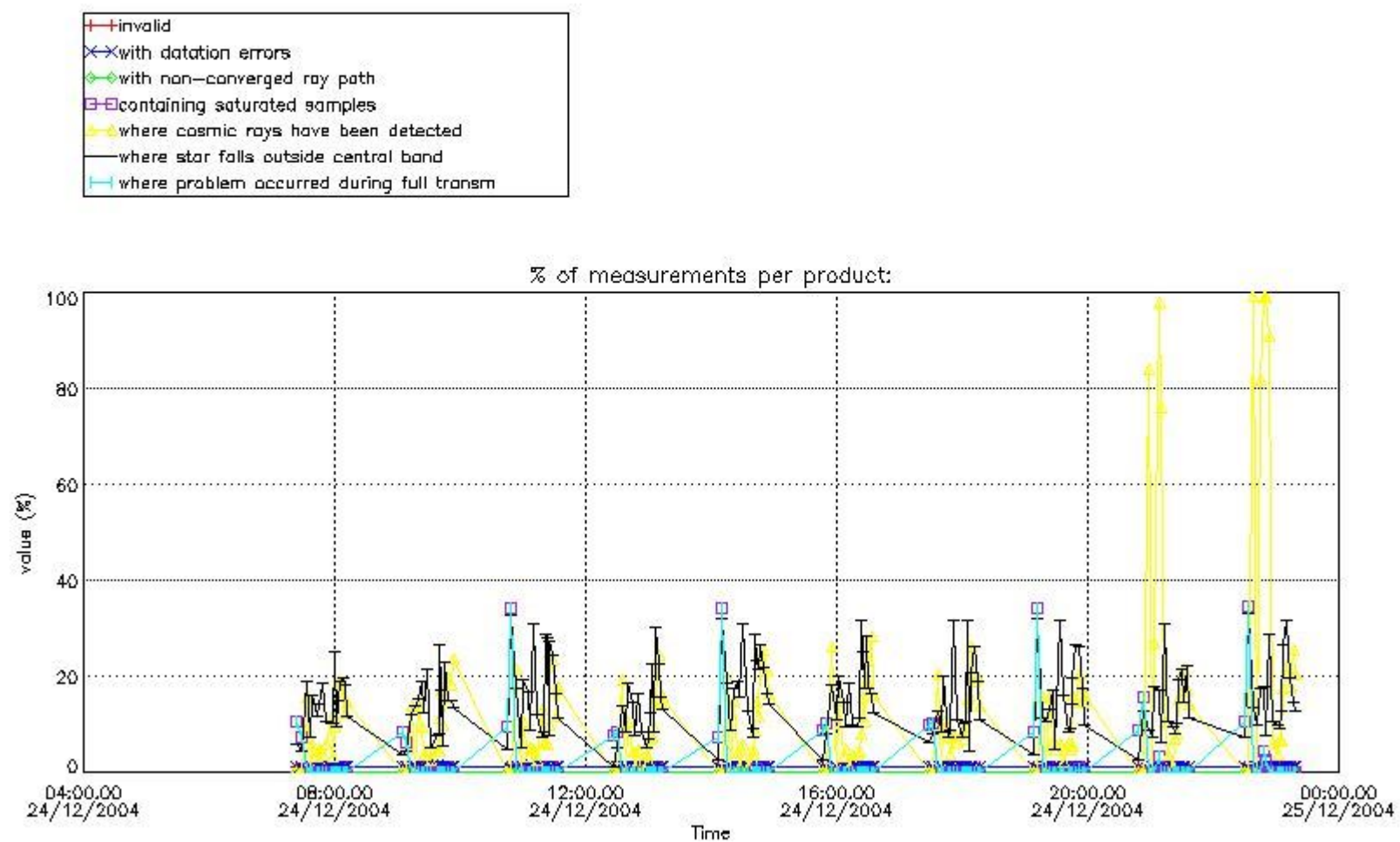


#### 4. Level 1 quality information per product

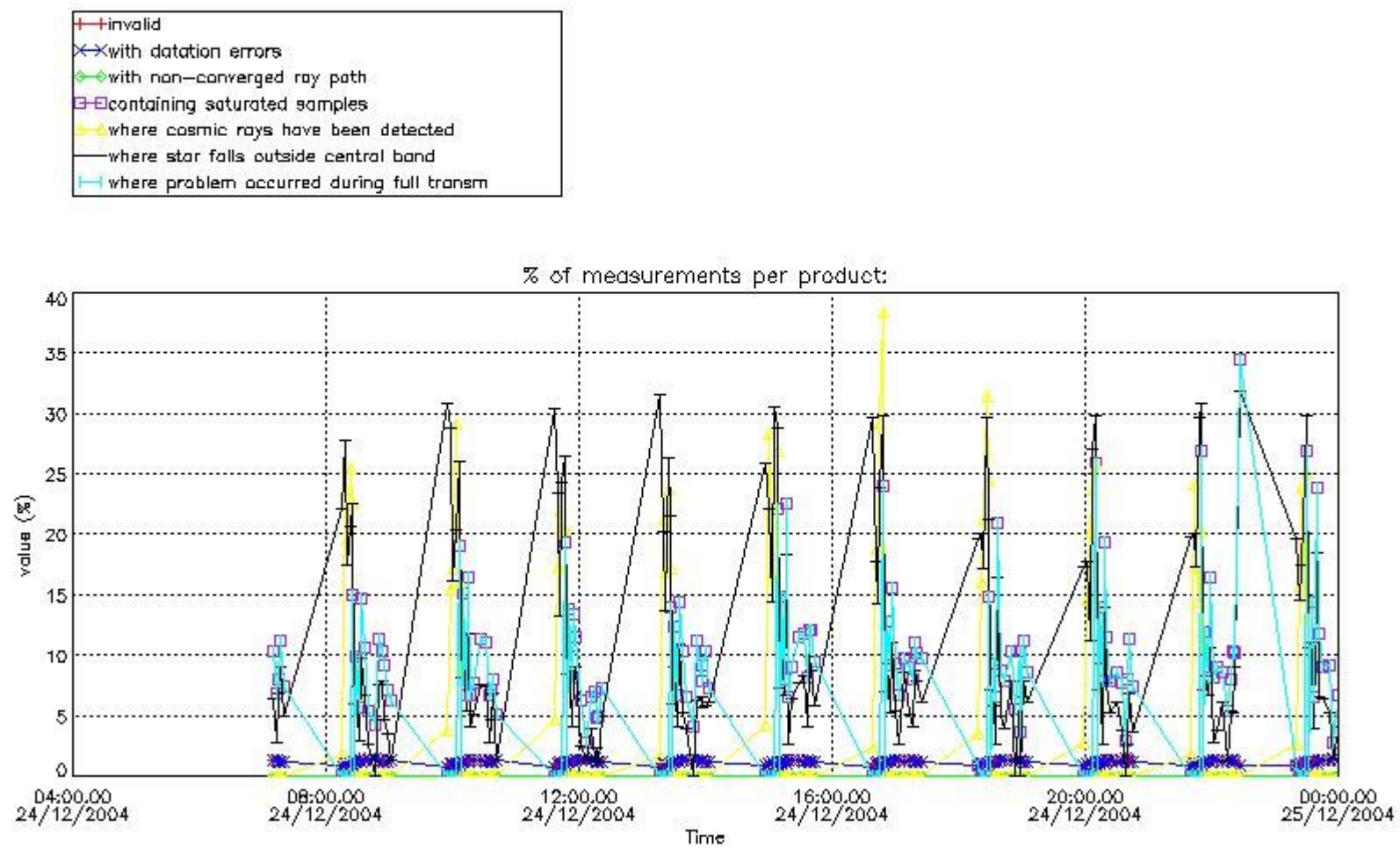
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

##### 4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes

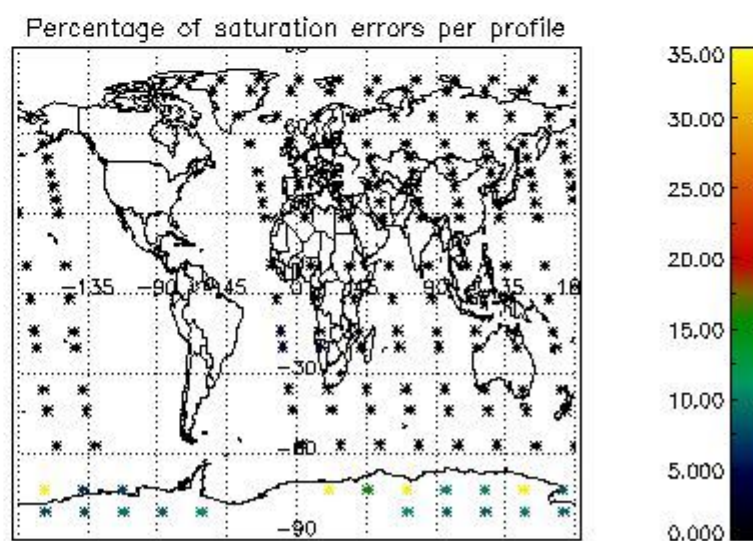
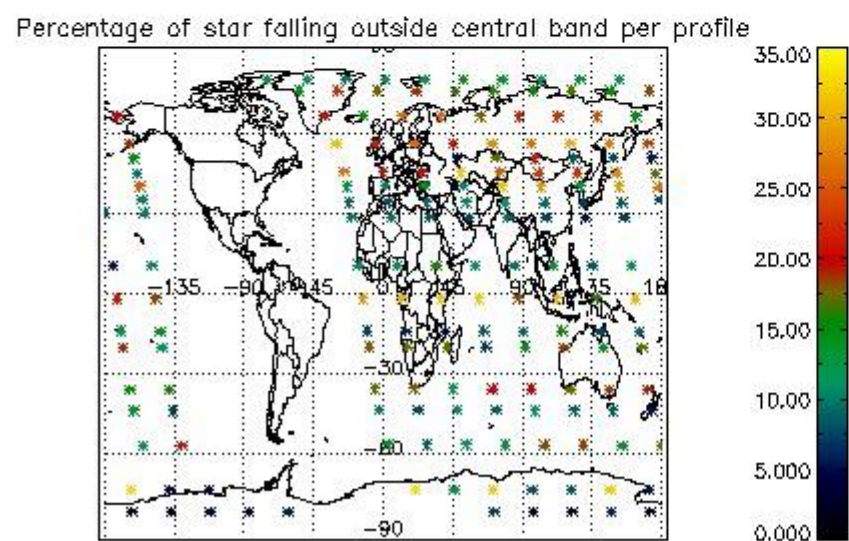
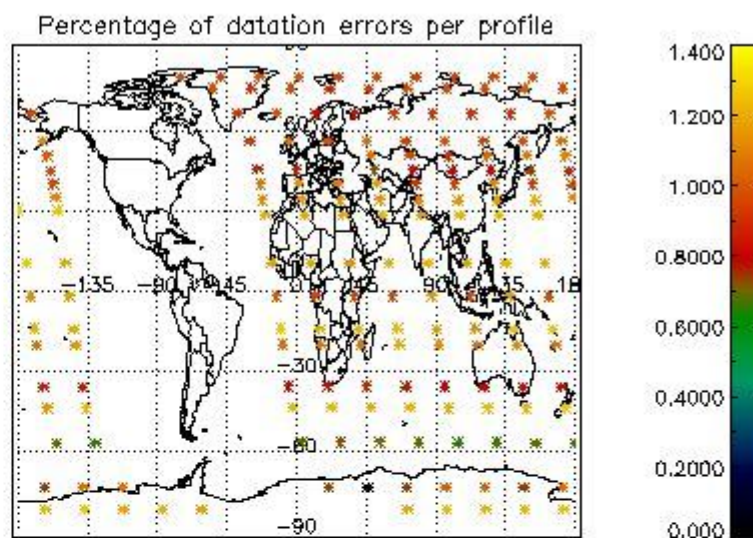
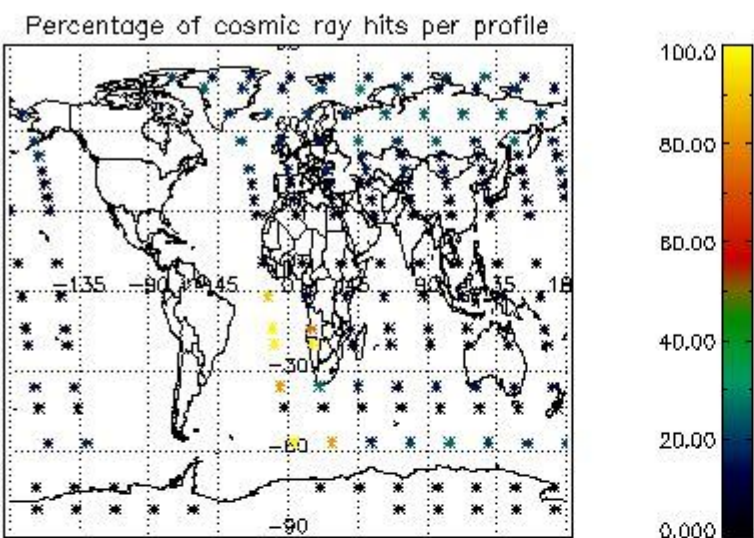


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



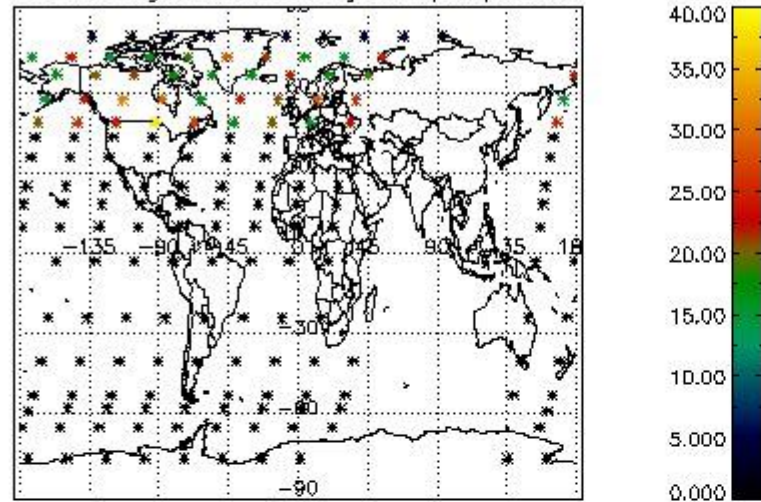
#### 4.2 Plot quality information per product coming from level 1b processing (world map)

##### 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes

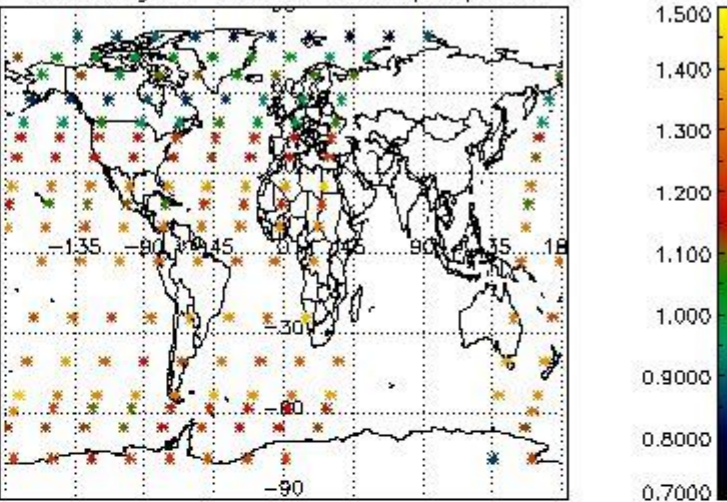


4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes

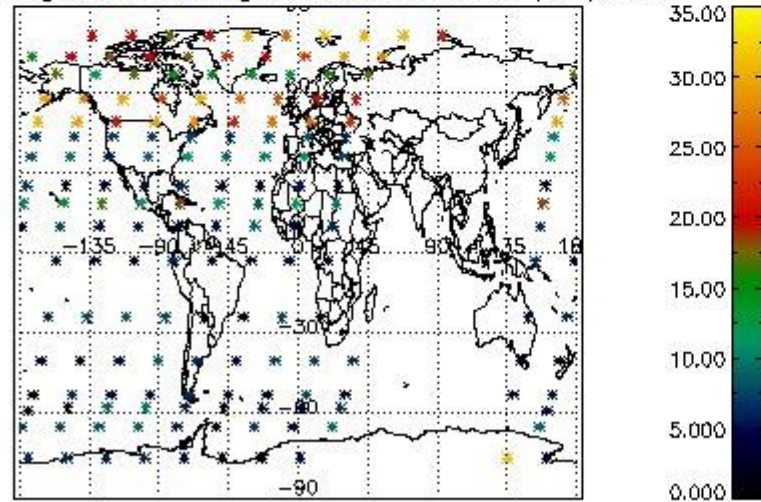
Percentage of cosmic ray hits per profile



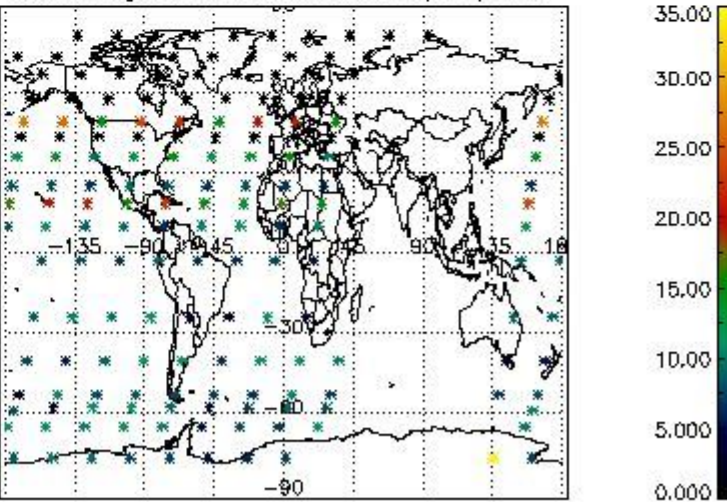
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

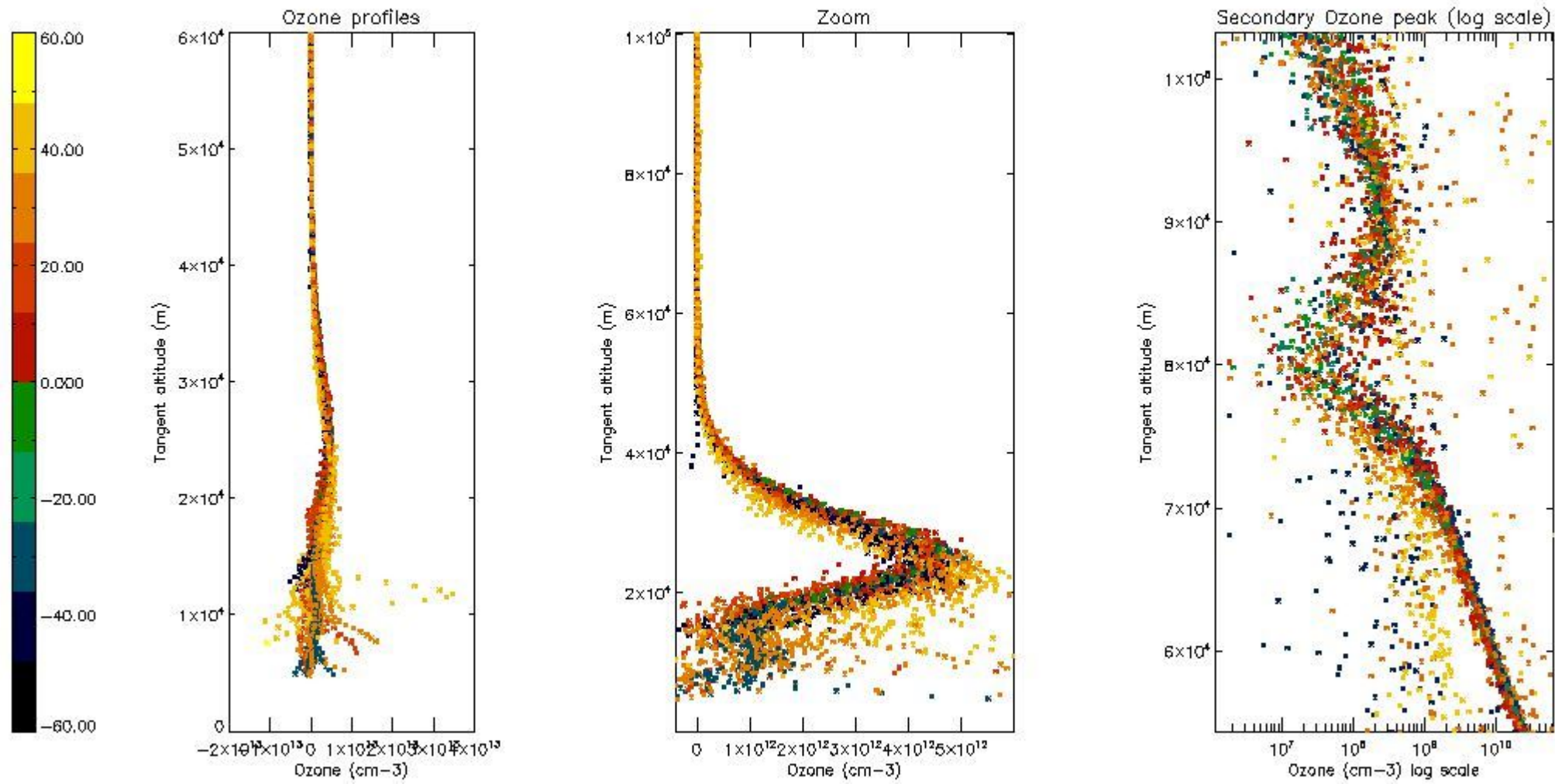
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	16

STD < 10	12
STD < 5	7

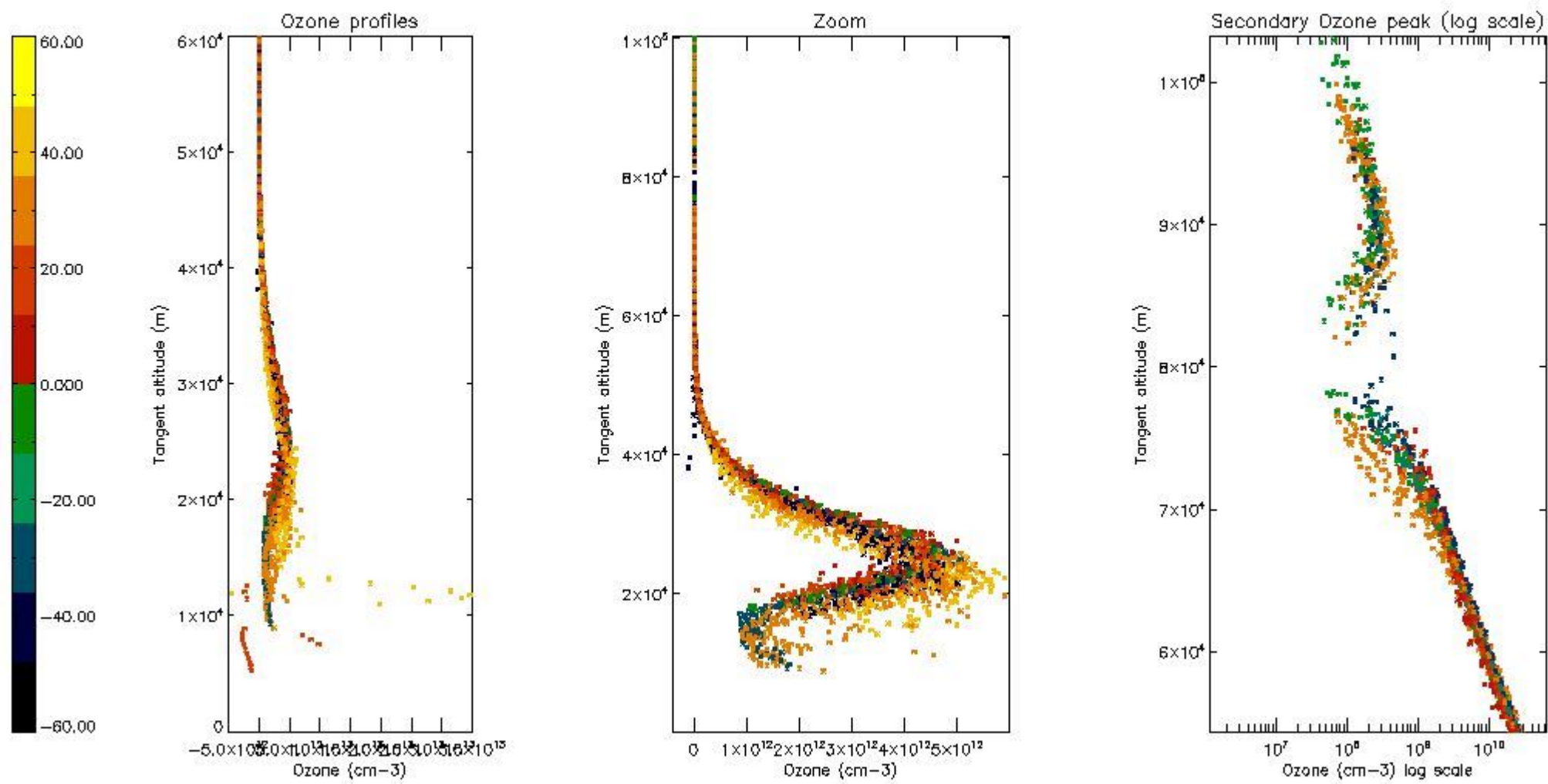
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



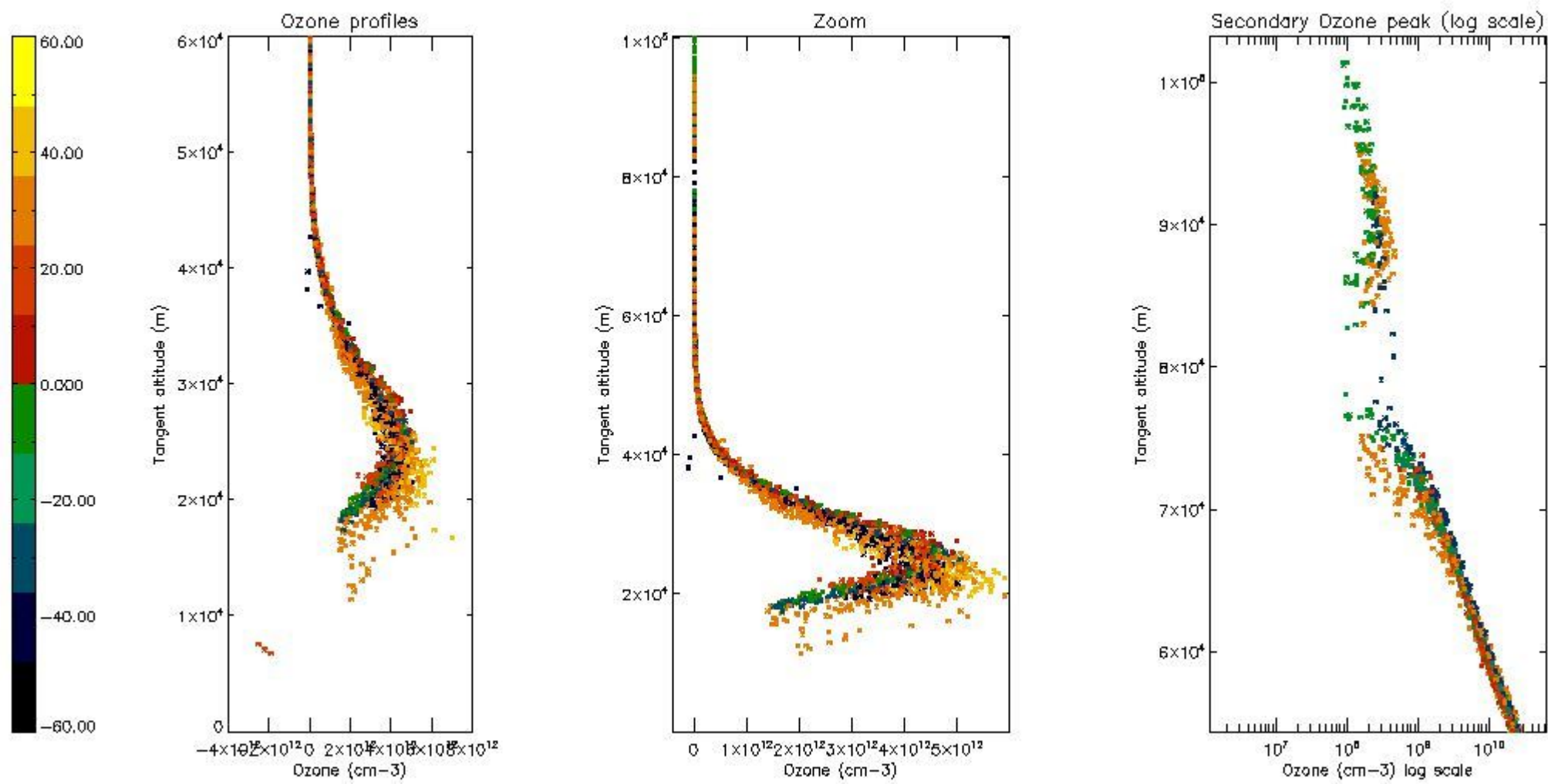
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

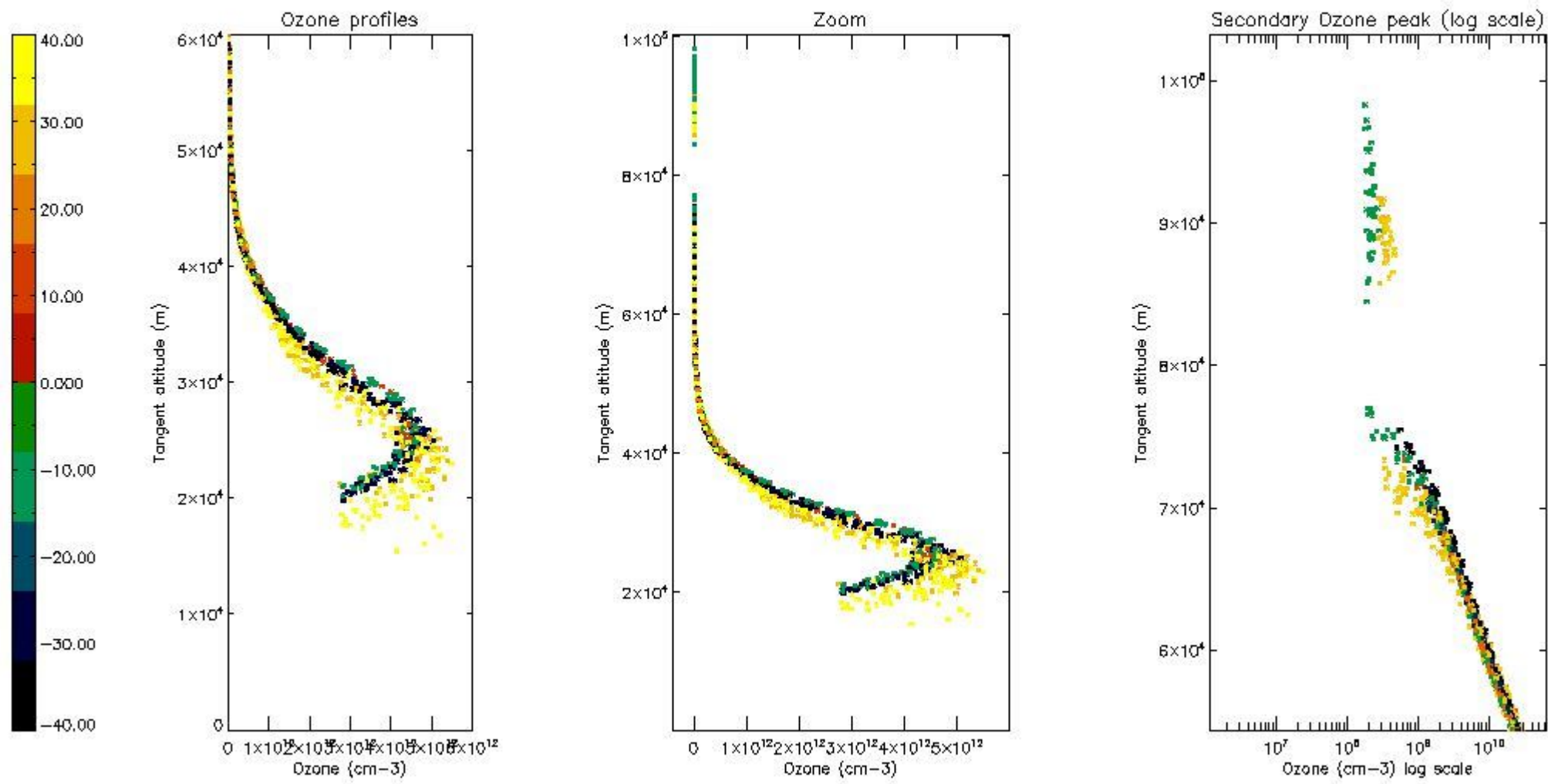
The colorbar represents the latitude.



*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

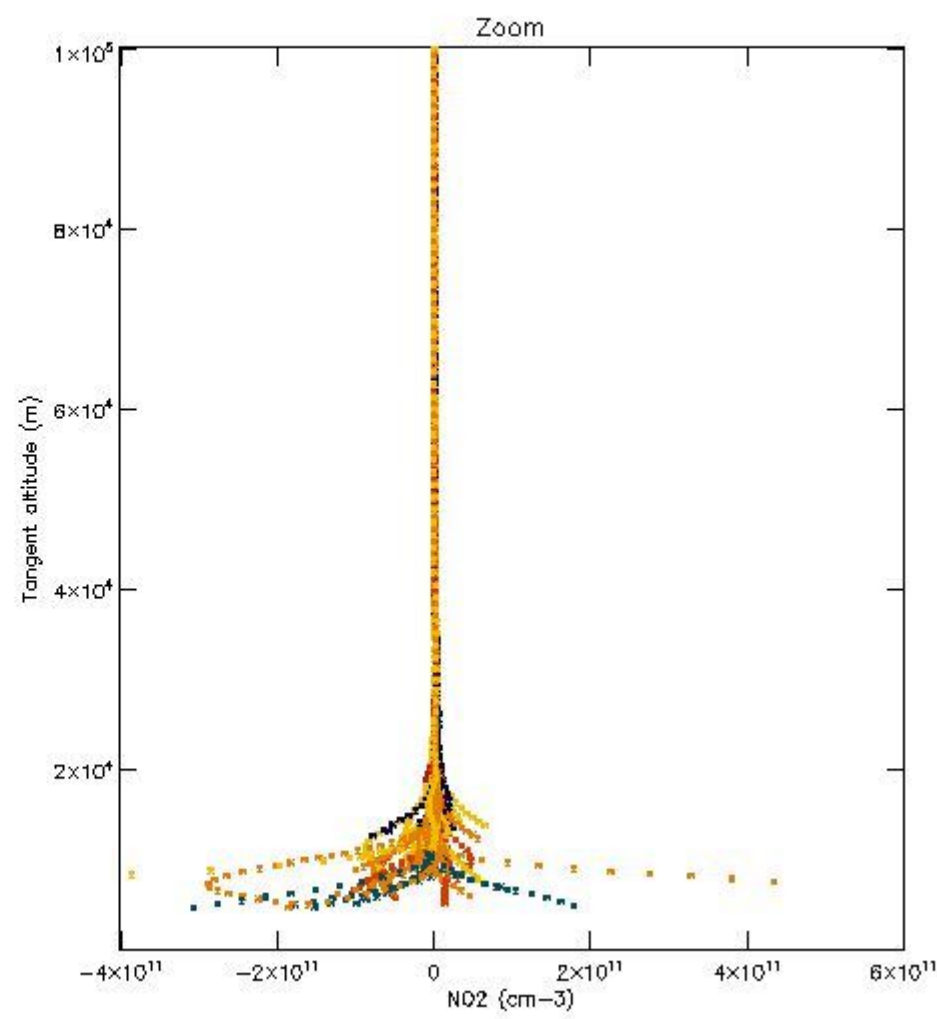
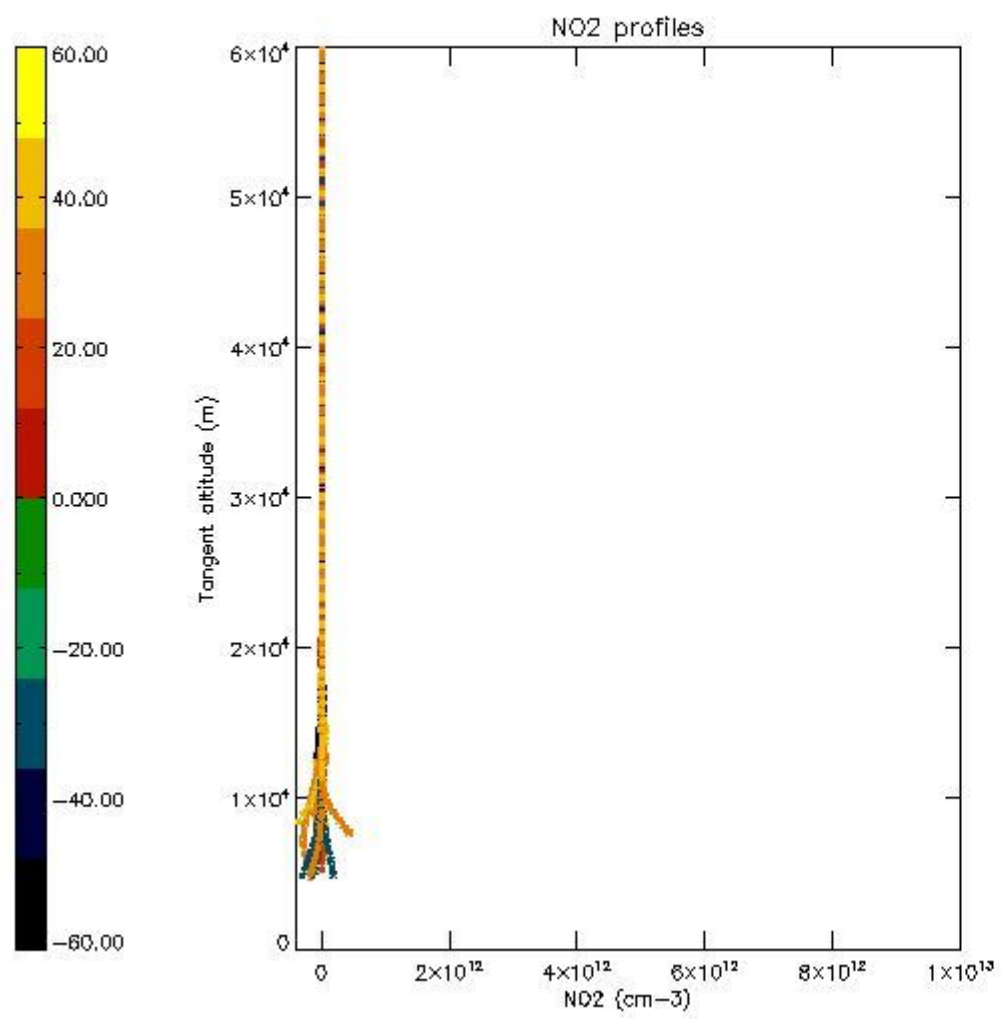
The colorbar represents the latitude.





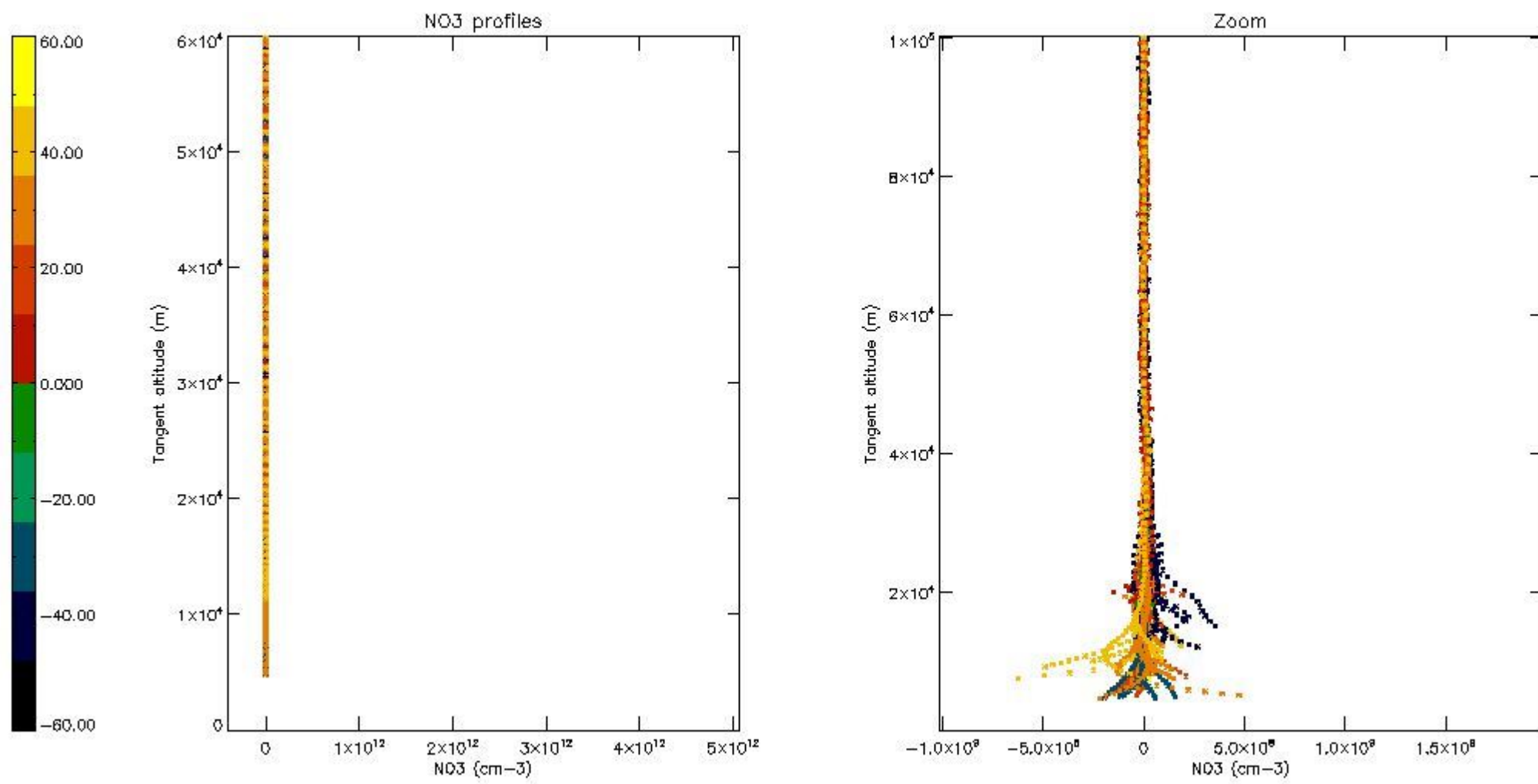
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



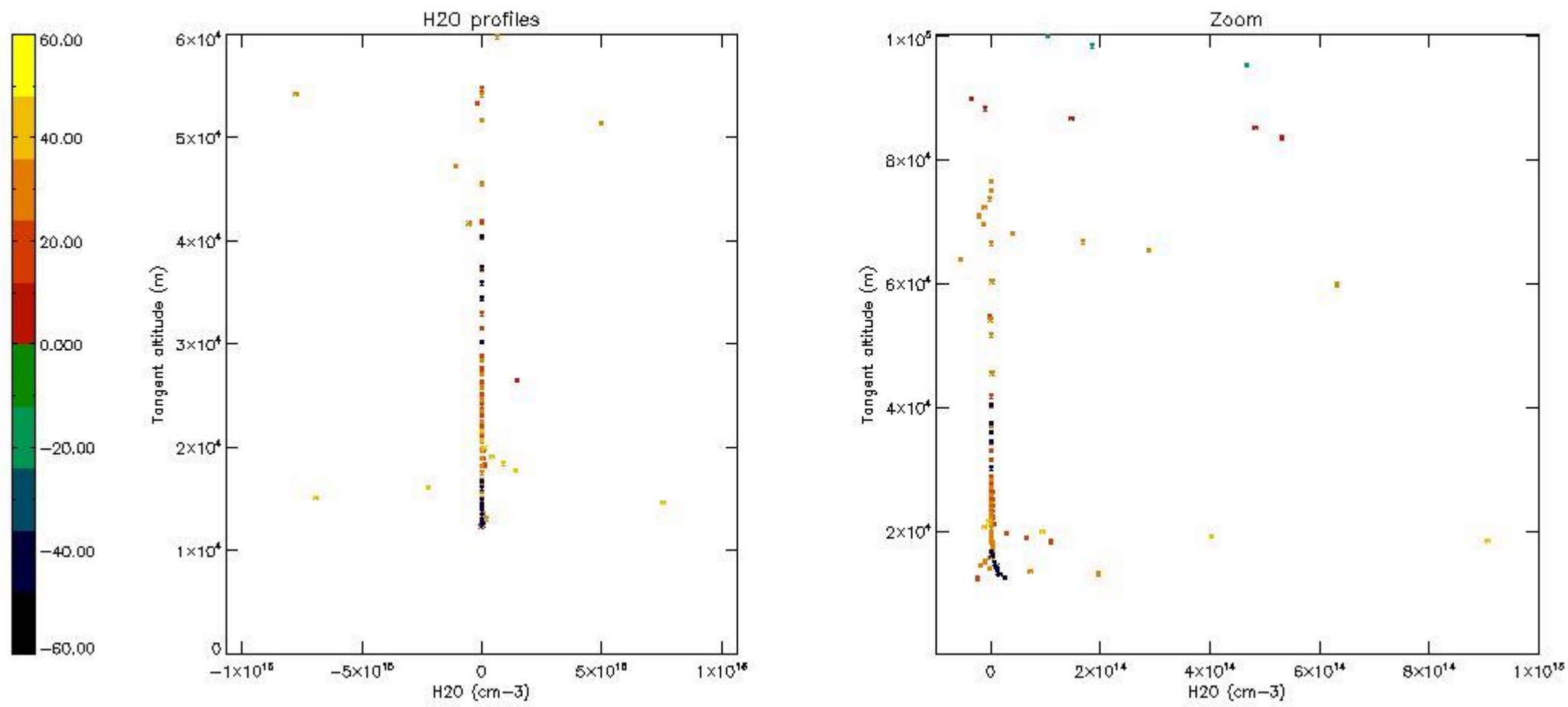
*5.7 Plot NO3 profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H<sub>2</sub>O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.



## 6. Auxiliary Data Files used for the production reported in section 2

The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	24-DEC-2004 07:09:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-DEC-2004 07:09:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-DEC-2004 07:09:51

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## SUMMARY

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### [2. Summary of processed GOM\\_NL\\_2P products](#)

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#### [3.2 Plot of level 2 quality information per product \(world map\)](#)

### [4. Level 1 Quality information per product \(stored on level 2 products\)](#)

#### [4.1 Plot of level 1 quality information per product \(time dependant\)](#)

##### [4.1.1 Plot of level 1 quality information per product \(time dependant\): ASCENDING](#)

##### [4.1.2 Plot of level 1 quality information per product \(time dependant\): DESCENDING](#)

#### [4.2 Plot of level 1 quality information per product \(world map\)](#)

##### [4.2.1 Plot of level 1 quality information per product \(world map\): ASCENDING](#)

##### [4.2.2 Plot of level 1 quality information per product \(world map\): DESCENDING](#)

### [5. Ozone profiles based on quality statistics and other trace gas profiles](#)

#### [5.1 Ozone statistics based on quality of products](#)

#### [5.2 Plot ozone profiles for all STD \(dark without errors\)](#)

#### [5.3 Plot ozone profiles where STD < 20% \(dark without errors\)](#)

#### [5.4. Plot ozone profiles where STD < 10% \(dark without errors\)](#)

#### [5.5. Plot ozone profiles where STD < 5% \(dark without errors\)](#)

#### [5.6 Plot NO2 profiles for all STD \(dark without errors\)](#)

#### [5.7 Plot NO3 profiles for all STD \(dark without errors\)](#)

#### [5.8 Plot H2O profiles \(only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors\) for all STD](#)

### [6. Auxiliary Data Files used for the production reported in section 2](#)













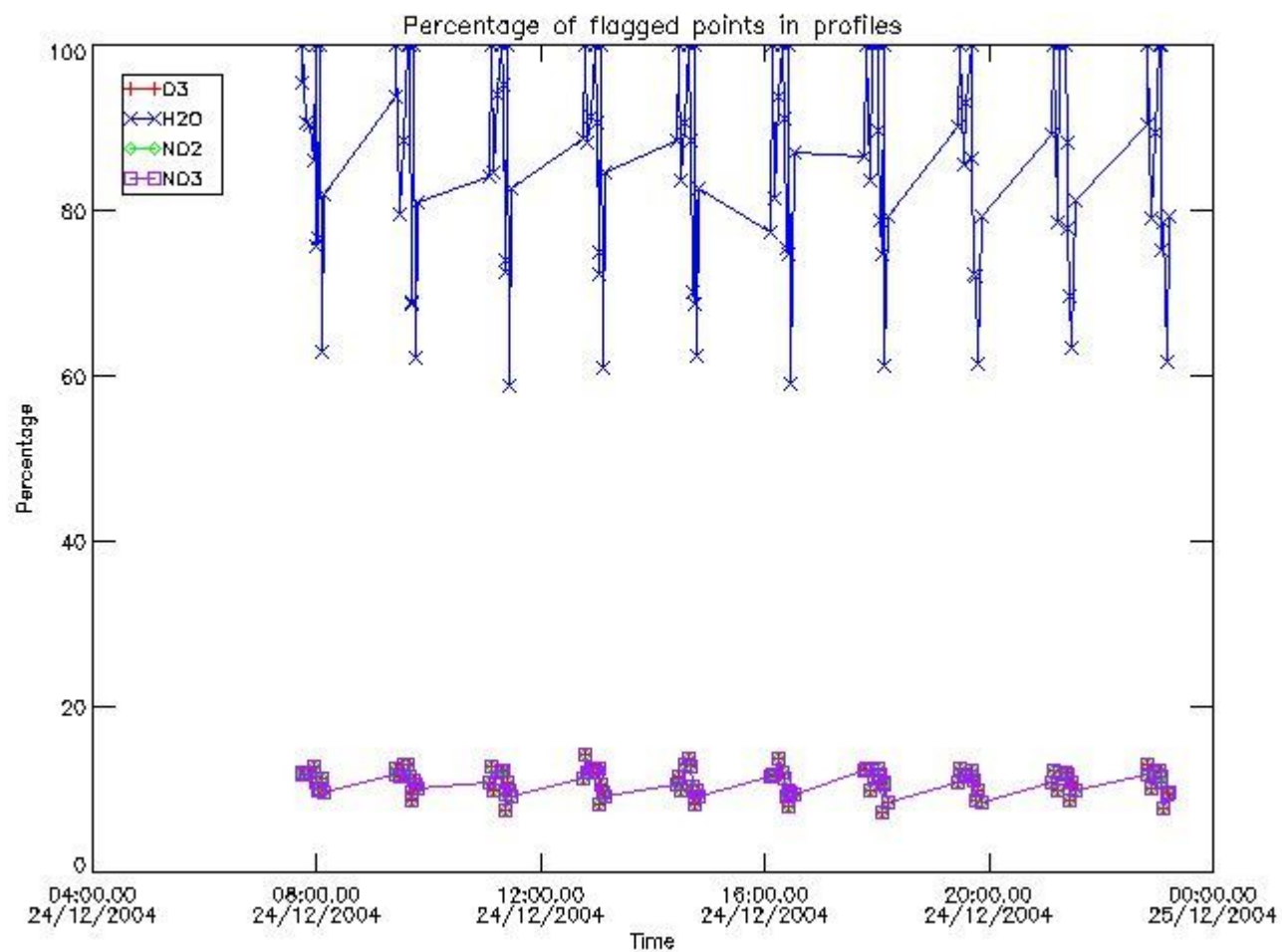


338	GOM_NL__2PRFIN20041224_232530_000000462033_00159_14742_7539.N1	24-DEC-2004 23:25:30	Straylight	46.000	30	46Eps Ori	1.6940	30000.	92	14742	No
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340	GOM_NL__2PRFIN20041224_233041_000000522033_00159_14742_7541.N1	24-DEC-2004 23:30:41	Bright	52.000	13	87Alp Tau	0.86700	3800.0	104	14742	No
341	GOM_NL__2PRFIN20041224_233216_000000432033_00159_14742_7542.N1	24-DEC-2004 23:32:16	Bright	42.500	176	23Zet Tau	3.0200	22000.	85	14742	No
342	GOM_NL__2PRFIN20041224_233419_000000452033_00159_14742_7543.N1	24-DEC-2004 23:34:19	Bright	45.000	28	12Bet Tau	1.6500	15200.	90	14742	No
343	GOM_NL__2PRFIN20041224_233724_000000392033_00159_14742_7544.N1	24-DEC-2004 23:37:24	Bright	38.500	149	45Eps Per	2.8880	30000.	77	14742	No
344	GOM_NL__2PRFIN20041224_233917_000000462033_00159_14742_7545.N1	24-DEC-2004 23:39:17	Bright	46.000	6	13Alp Aur	0.080000	3400.0	92	14742	No
345	GOM_NL__2PRFIN20041224_234141_000000382033_00159_14742_7546.N1	24-DEC-2004 23:41:41	Bright	38.000	160	23Gam Per	2.9300	4700.0	76	14742	No
346	GOM_NL__2PRFIN20041224_234520_000000392033_00159_14742_7547.N1	24-DEC-2004 23:45:20	Bright	39.000	110	37Del Cas	2.6780	8900.0	78	14742	No
347	GOM_NL__2PRFIN20041224_235113_000000382033_00159_14742_7548.N1	24-DEC-2004 23:51:13	Bright	38.000	49	1Alp UMi	1.9900	6300.0	76	14742	No
348	GOM_NL__2PRFIN20041224_235549_000000362033_00159_14742_7549.N1	24-DEC-2004 23:55:49	Bright	36.000	60	7Bet UMi	2.0810	3950.0	72	14742	No
349	GOM_NL__2PRFIN20041224_235926_000000372033_00159_14742_7550.N1	24-DEC-2004 23:59:26	Bright	37.000	119	14Eta Dra	2.7270	4700.0	74	14742	No

### 3. Quality information per product

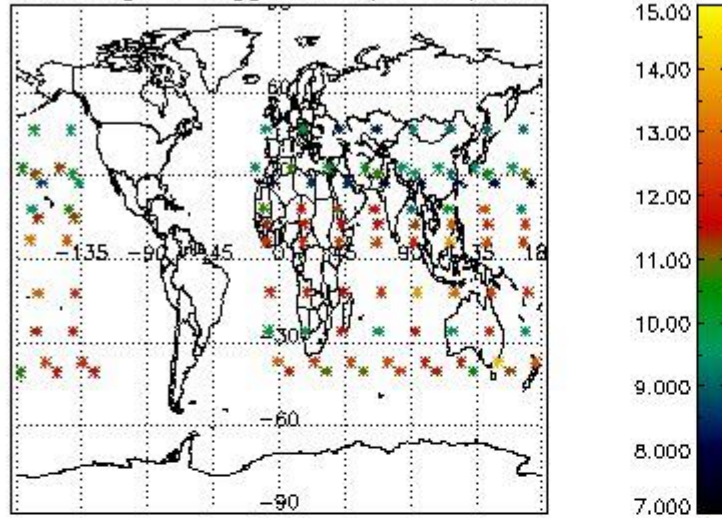
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products. Only products in dark limb conditions and without errors (error flag in the MPH set to "0") are used.

#### 3.1 Plot quality information per product (time dependant)

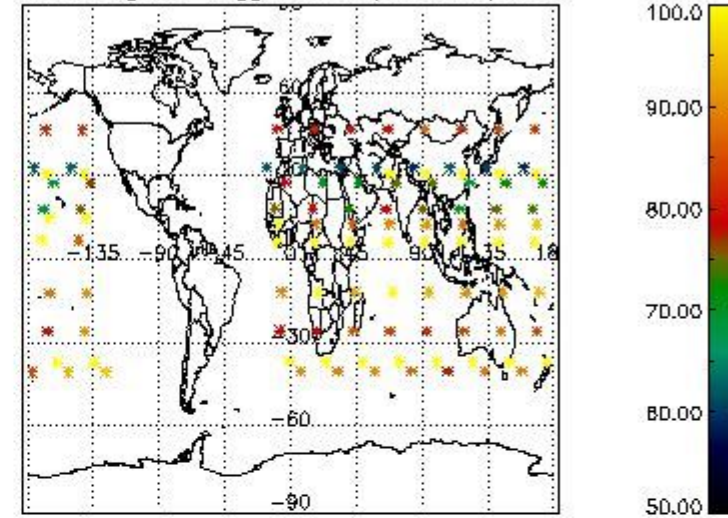


#### 3.2 Plot quality information per product (world map)

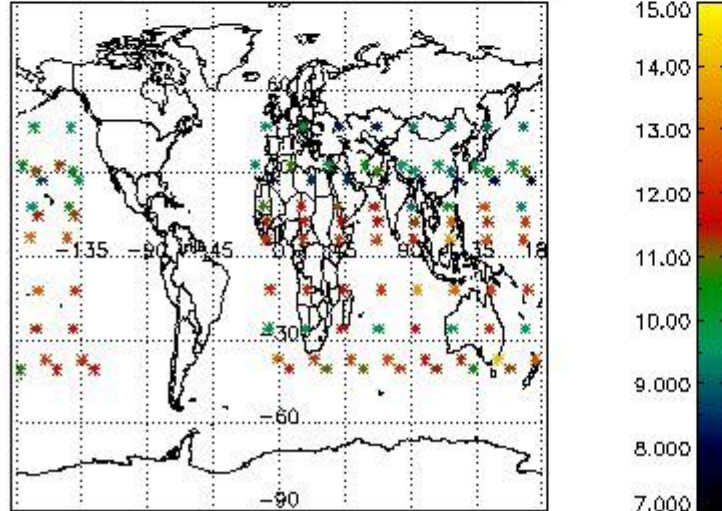
Percentage of flagged data per O3 profile



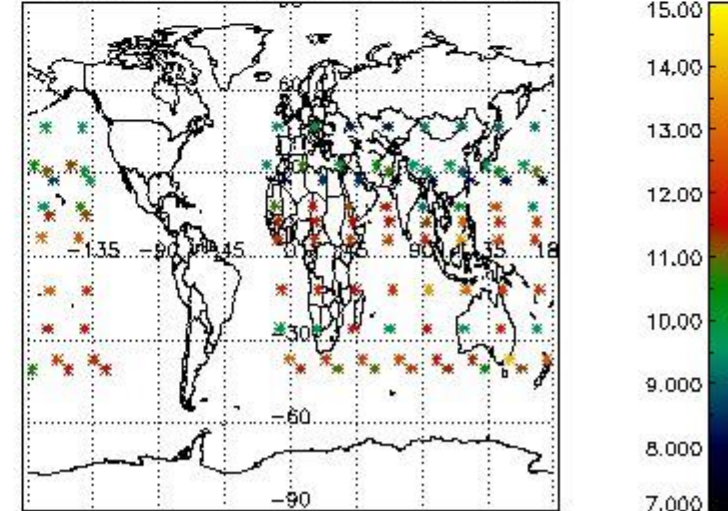
Percentage of flagged data per H2O profile



Percentage of flagged data per NO2 profile



Percentage of flagged data per NO3 profile

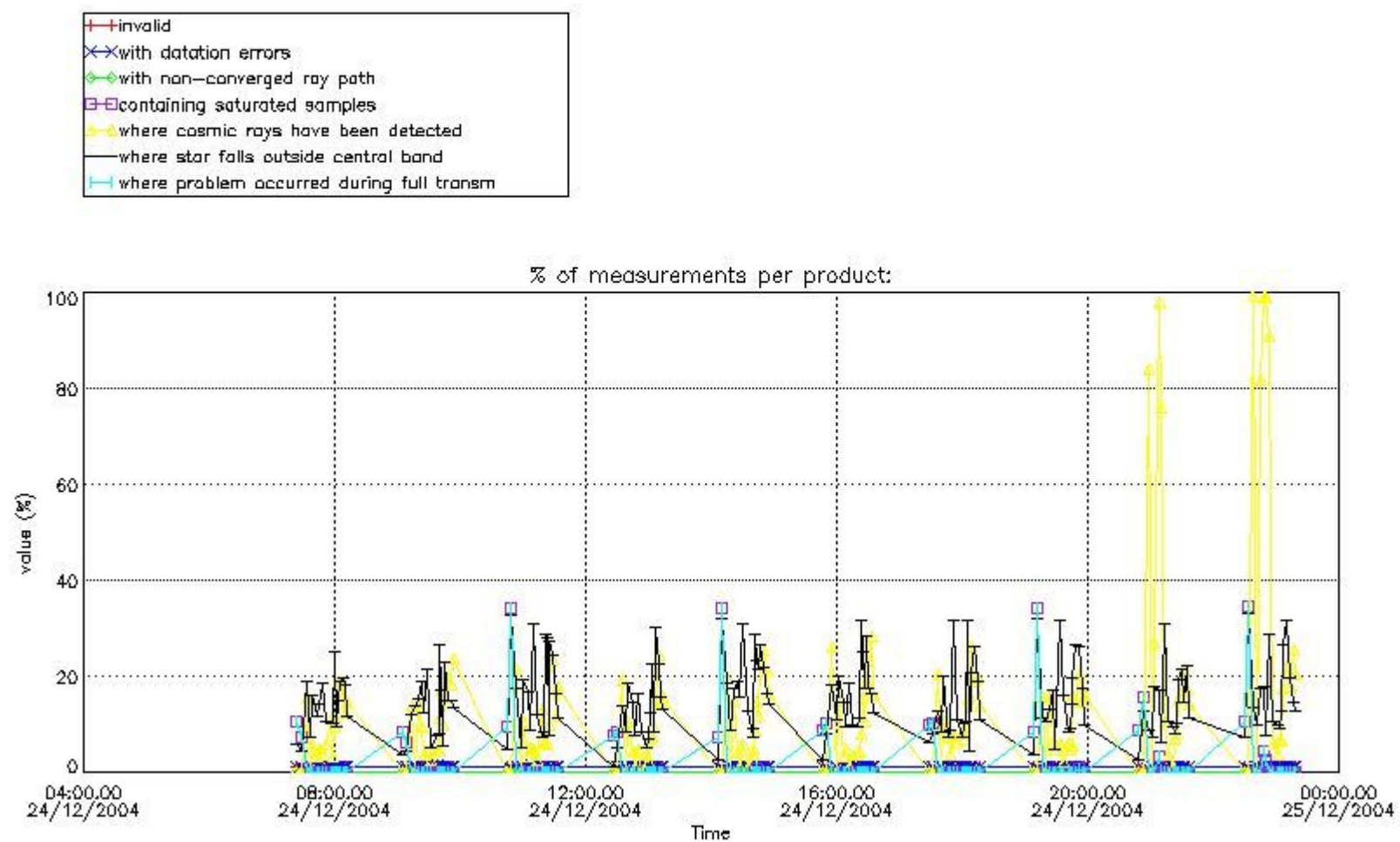


#### 4. Level 1 quality information per product

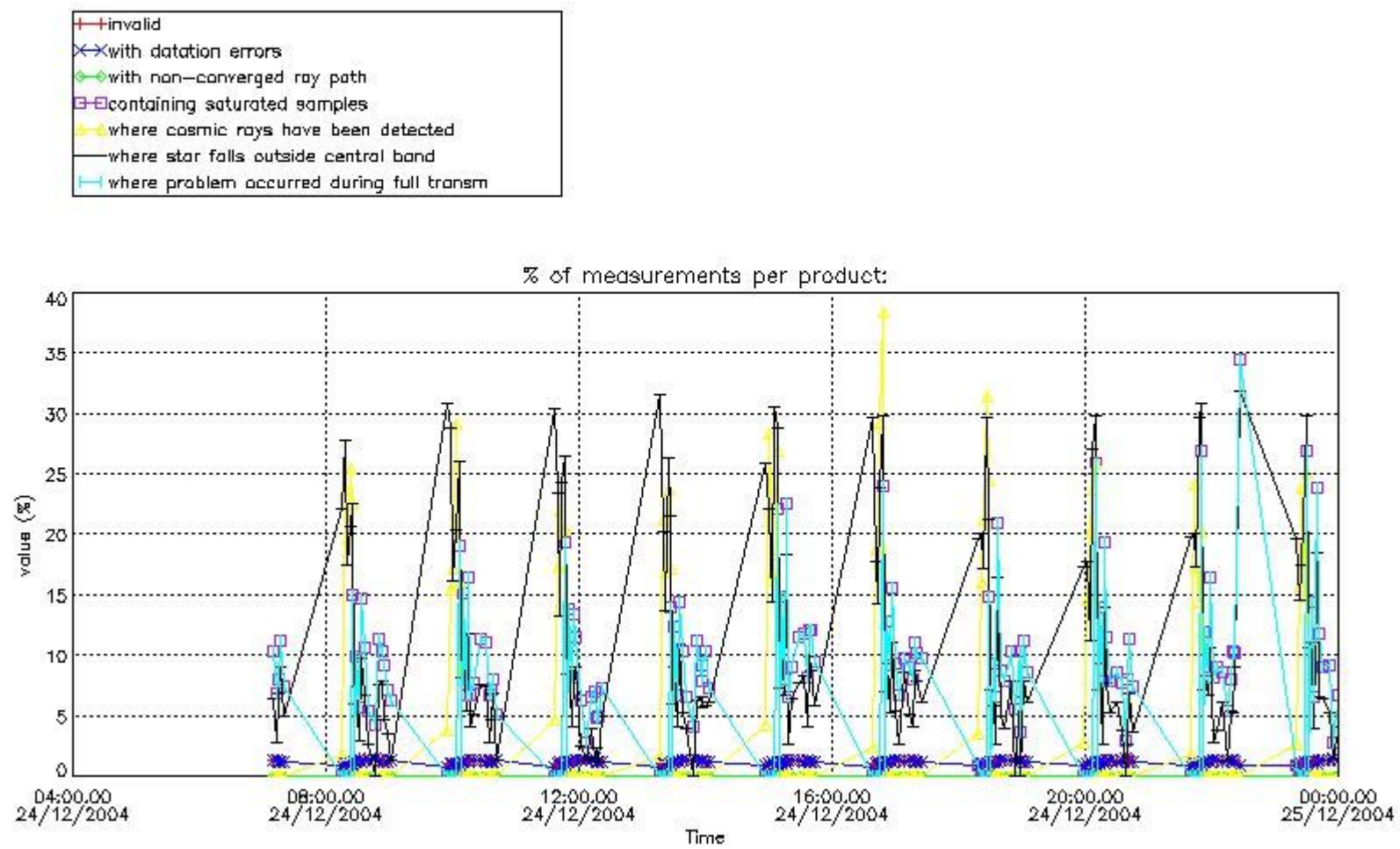
In this section it is plotted some information contained in the Quality Summary data set of the level 2 products that comes from the level 1b processing. Products without errors (error flag in the MPH set to "0") are used.

##### 4.1 Plot quality information per product (time dependant) coming from level 1b processing

###### 4.1.1 Plot level 1 quality information per product (time dependant): ENVISAT ASCENDING passes

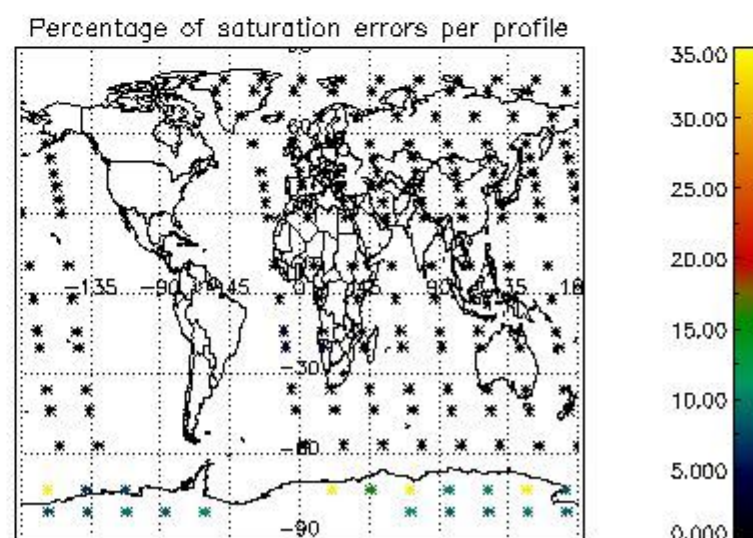
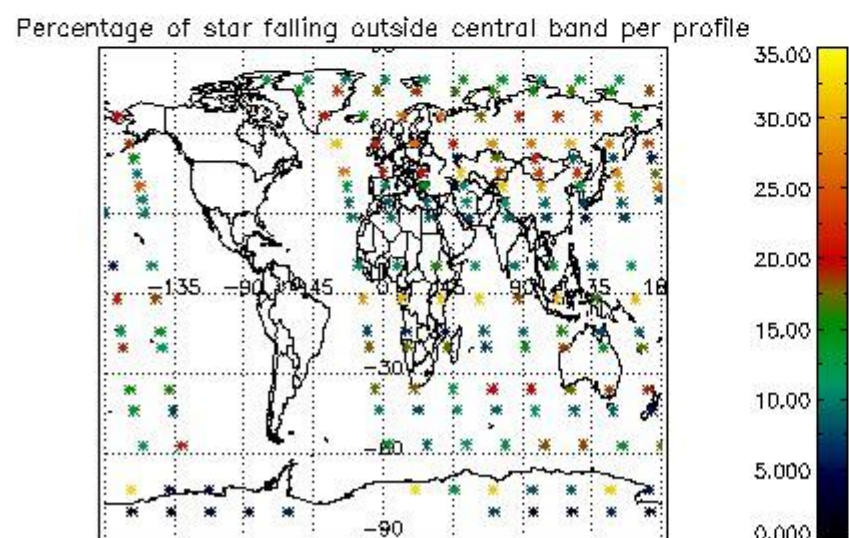
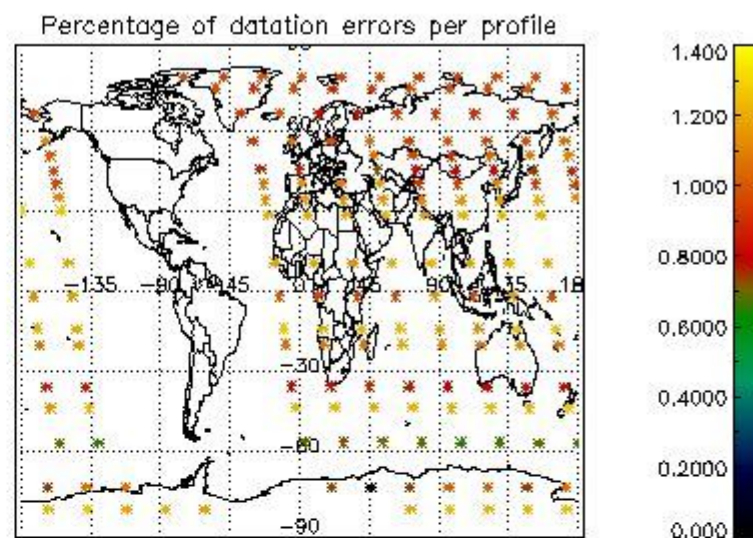
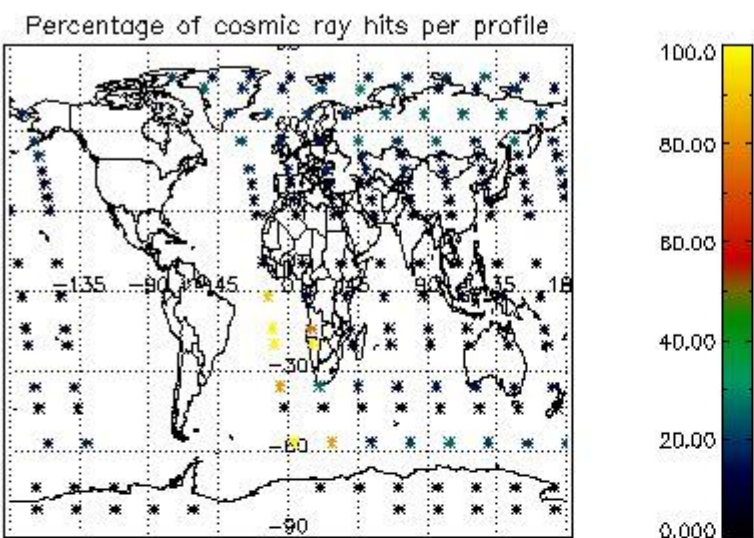


4.1.2 Plot level 1 quality information per product (time dependant): ENVI SAT DESCENDING passes



#### 4.2 Plot quality information per product coming from level 1b processing (world map)

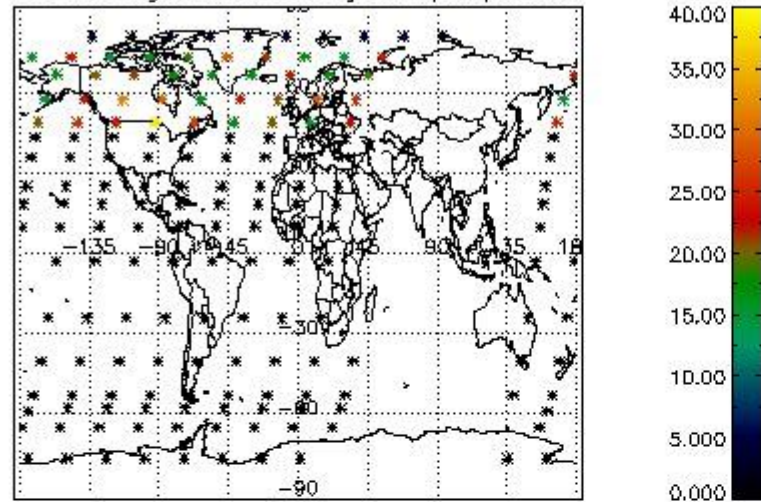
##### 4.2.1 Plot level 1 quality information per product (world map): ENVISAT ASCENDING passes



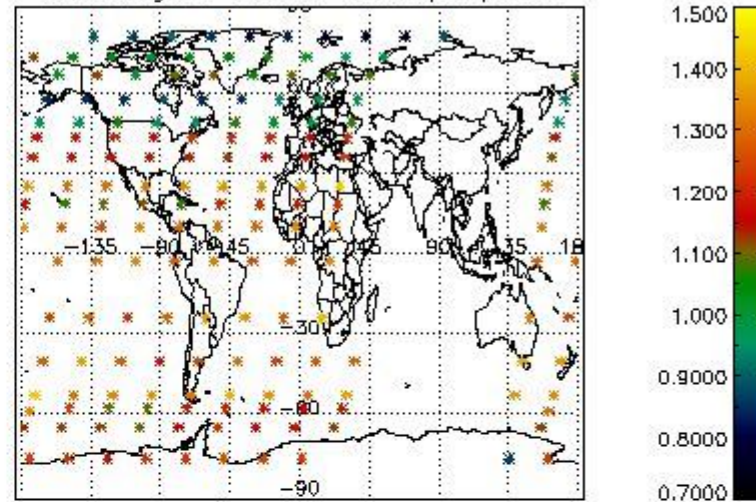
4.2.2 Plot level 1 quality information per product (world map): ENVISAT DESCENDING passes



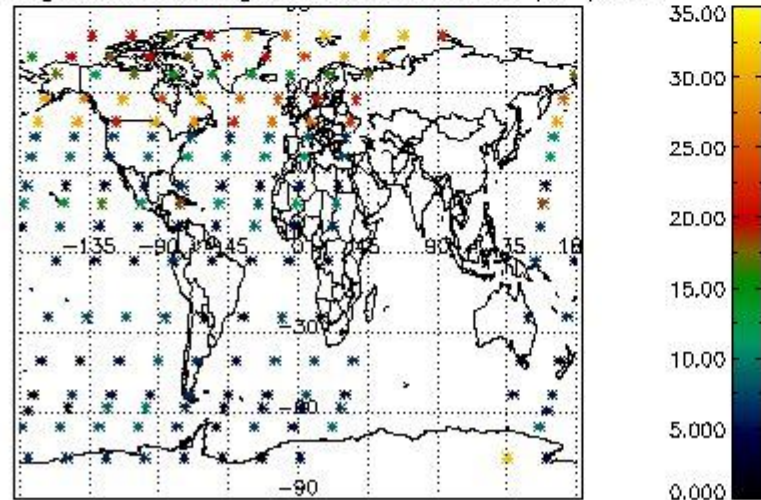
Percentage of cosmic ray hits per profile



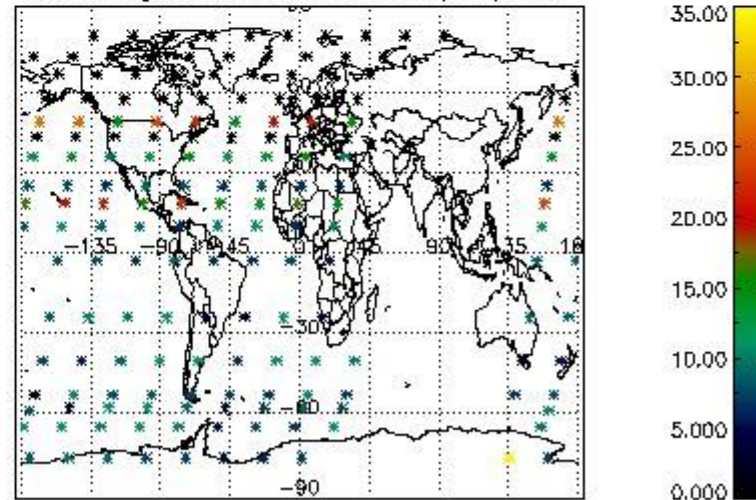
Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile



## 5. Trace gas profiles

### 5.1 Ozone statistics based on quality of products

The final quality of the products can be "measured" using the STD (Standard Deviation) attached to every point profile. This information is written to the parameter GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/o3\_std of the level 2 products. The table below shows the statistics for given STD ranges.

The statistics are given with respect to the overall valid production:

- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

The 'Criteria' is applied to valid points of dark limb products:

- Products in dark limb illumination condition: GOM\_NL\_\_2P/NL\_SUMMARY\_QUALITY/obs\_ill\_cond=0
- Products without fatal errors: GOM\_NL\_\_2P/MPH/PRODUCT\_ERR=0
- Valid point profile: GOM\_NL\_\_2P/NL\_LOCAL\_SPECIES\_DENSITY/pcd(0)=0

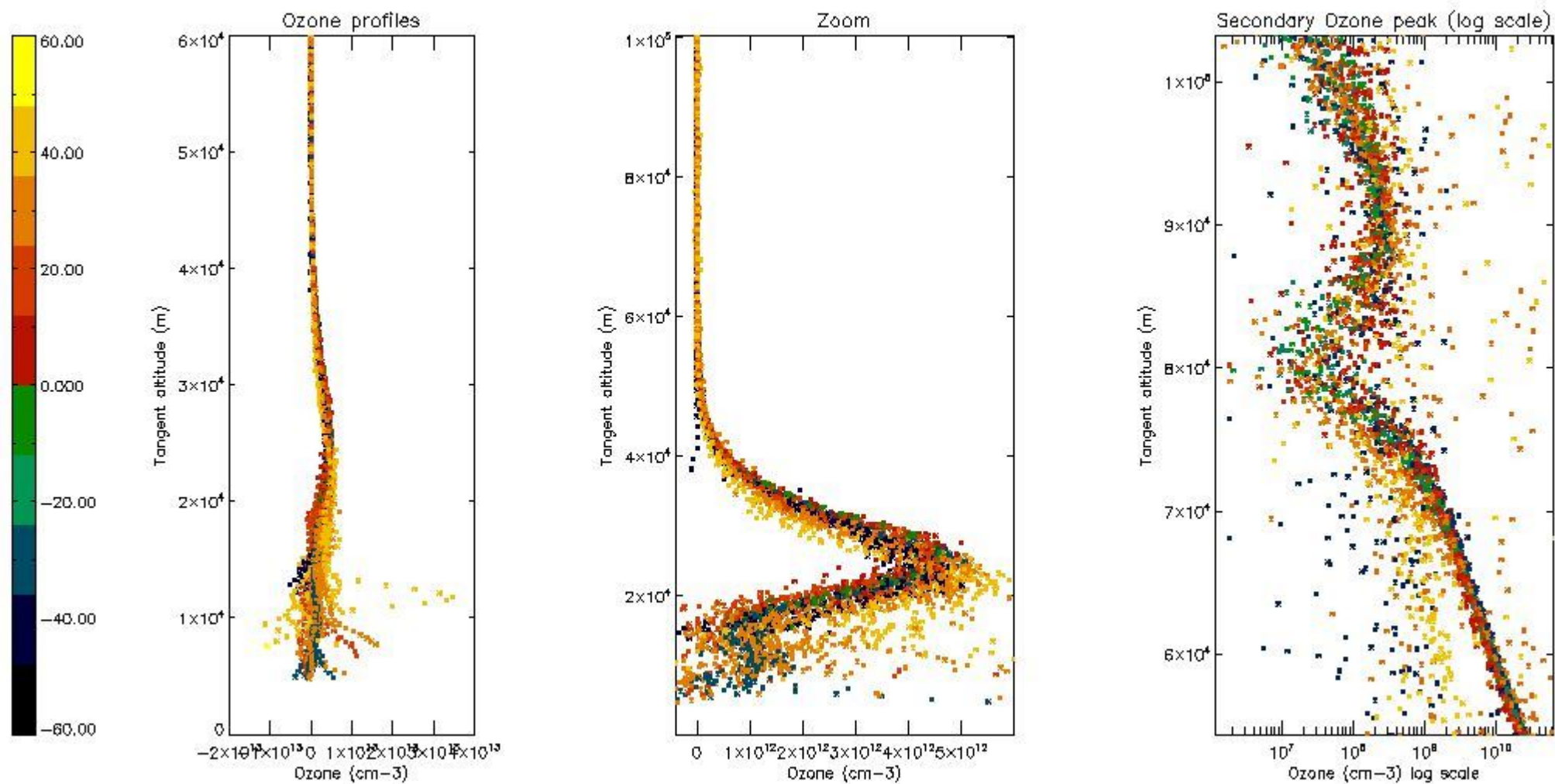
So, the table below shows the percentage of dark limb and valid observations for each criteria with respect to the overall valid daily observations.

Criteria	% of total production
All STD	32
STD < 20	16

STD < 10	12
STD < 5	7

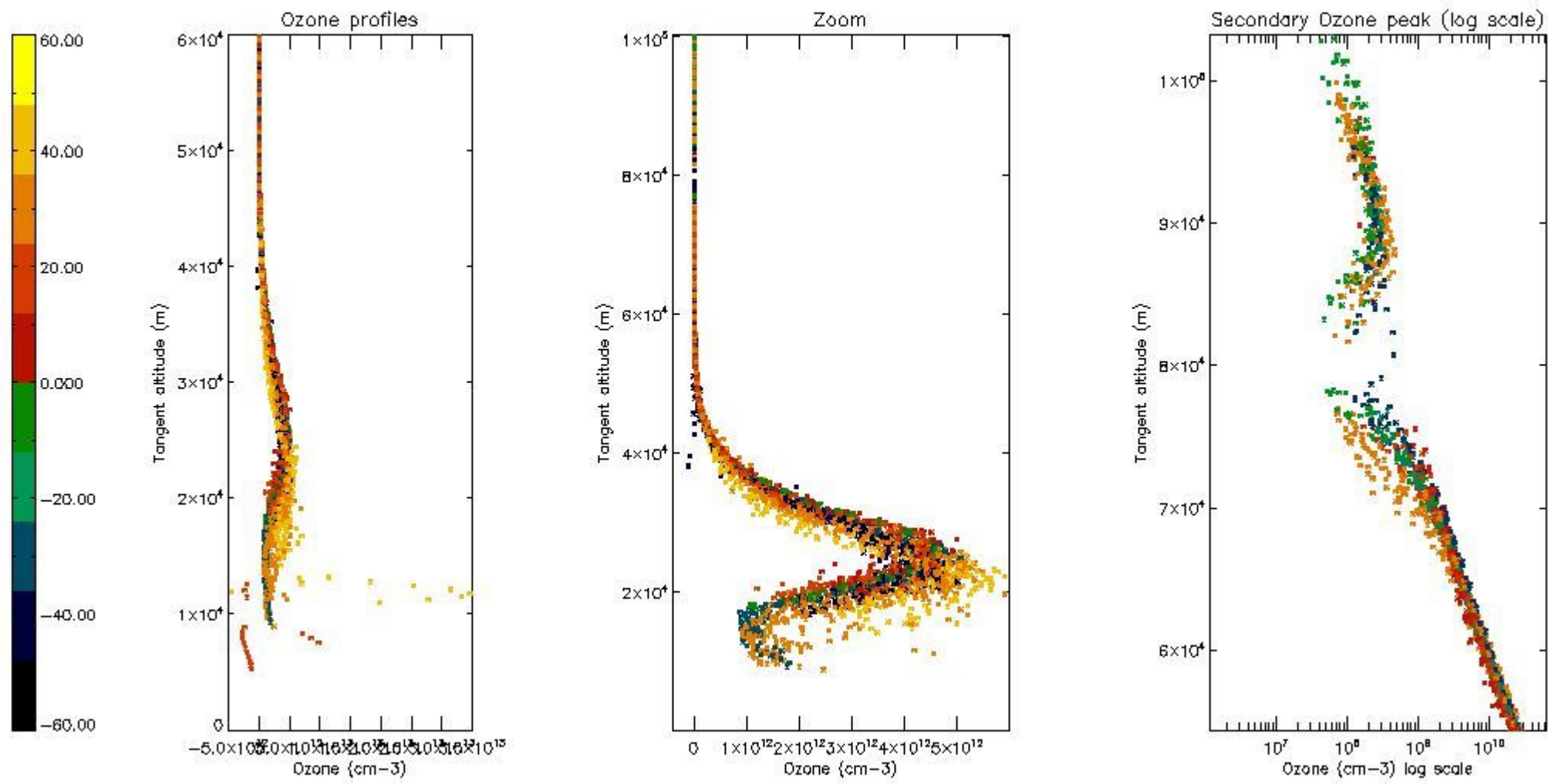
5.2 Plot ozone profiles for all STD (dark without errors)

The colorbar represents the latitude.



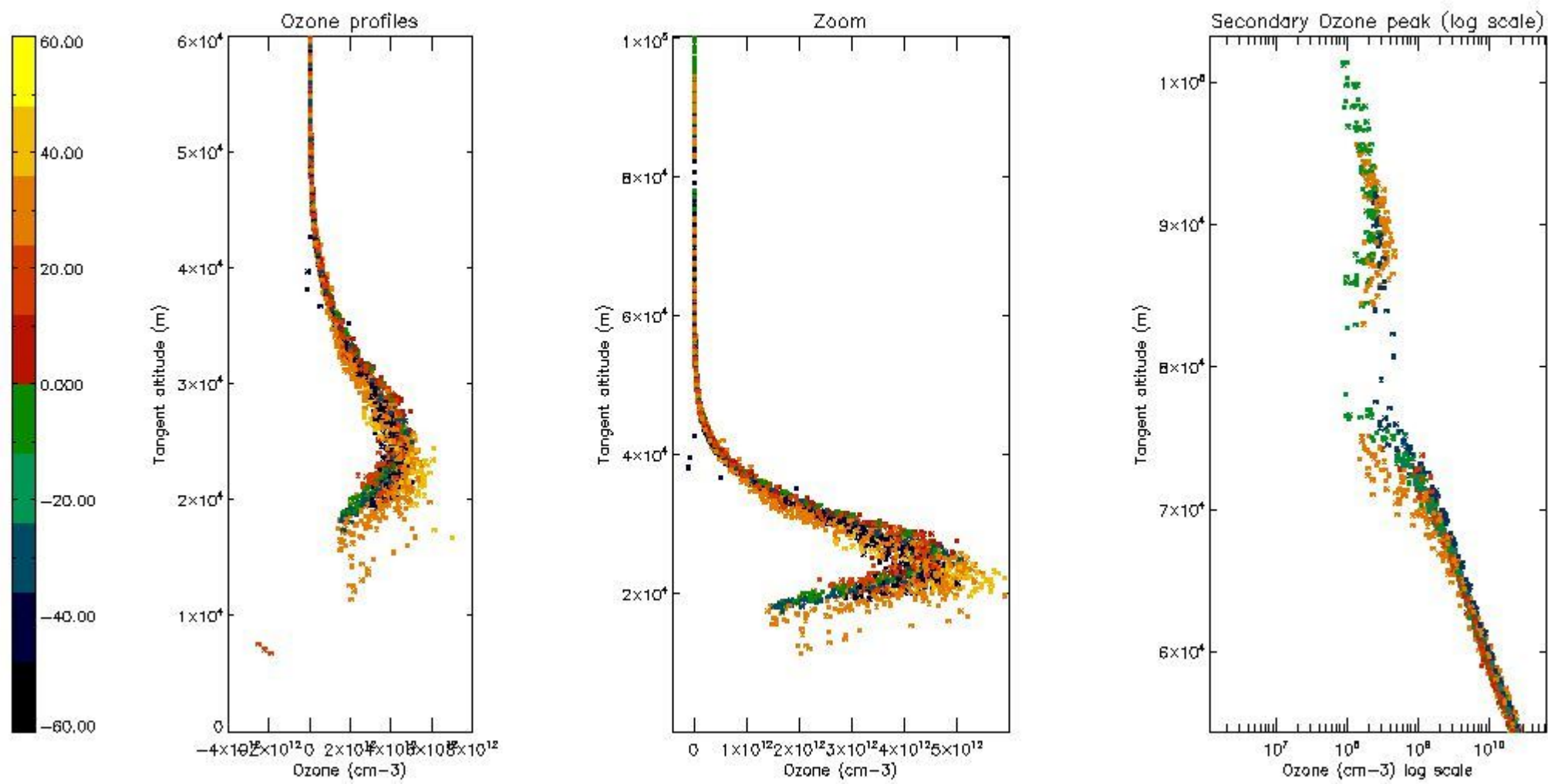
5.3 Plot ozone profiles where STD < 20% (dark without errors)

The colorbar represents the latitude.



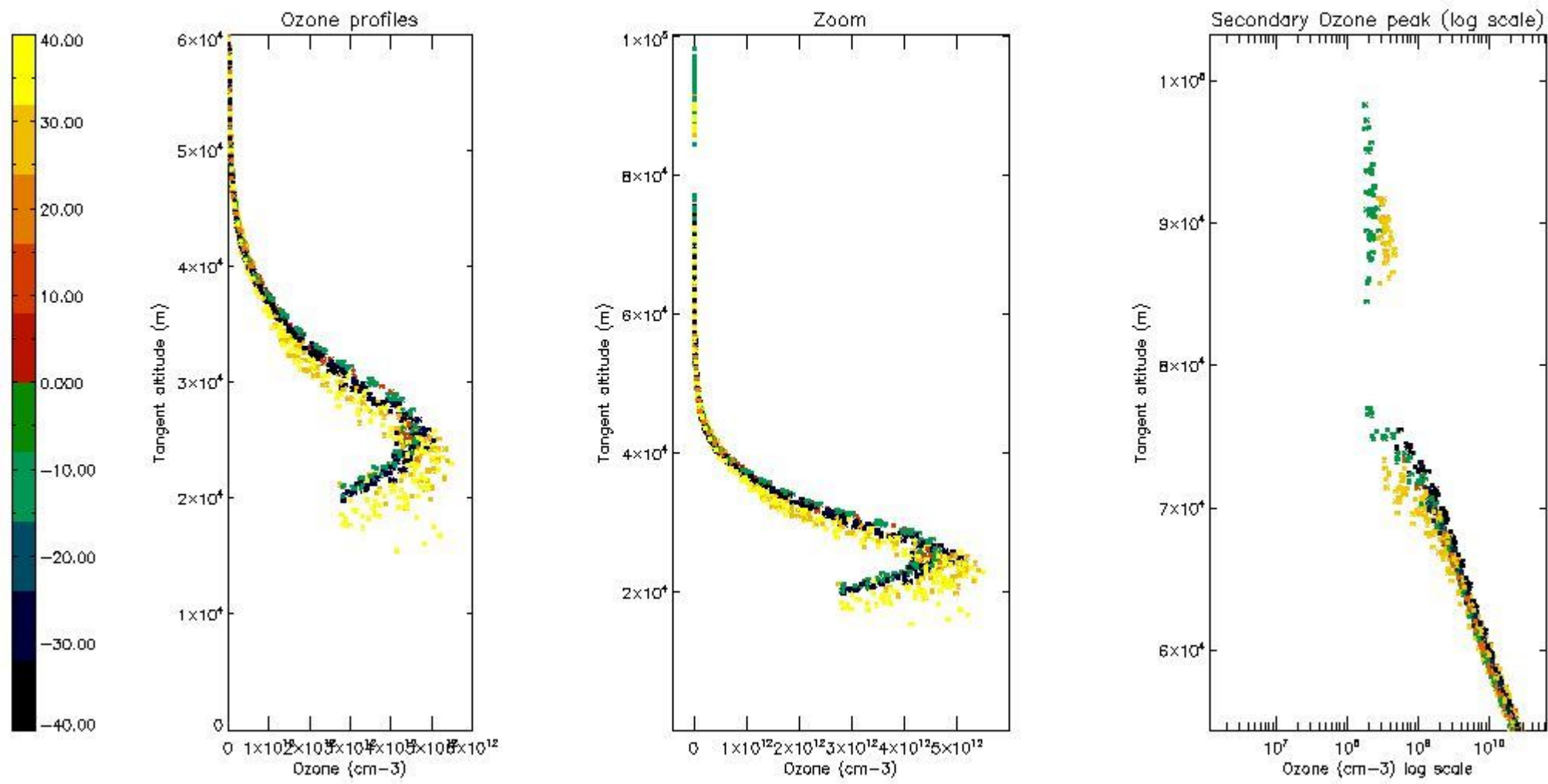
*5.4 Plot ozone profiles where STD < 10% (dark without errors)*

The colorbar represents the latitude.



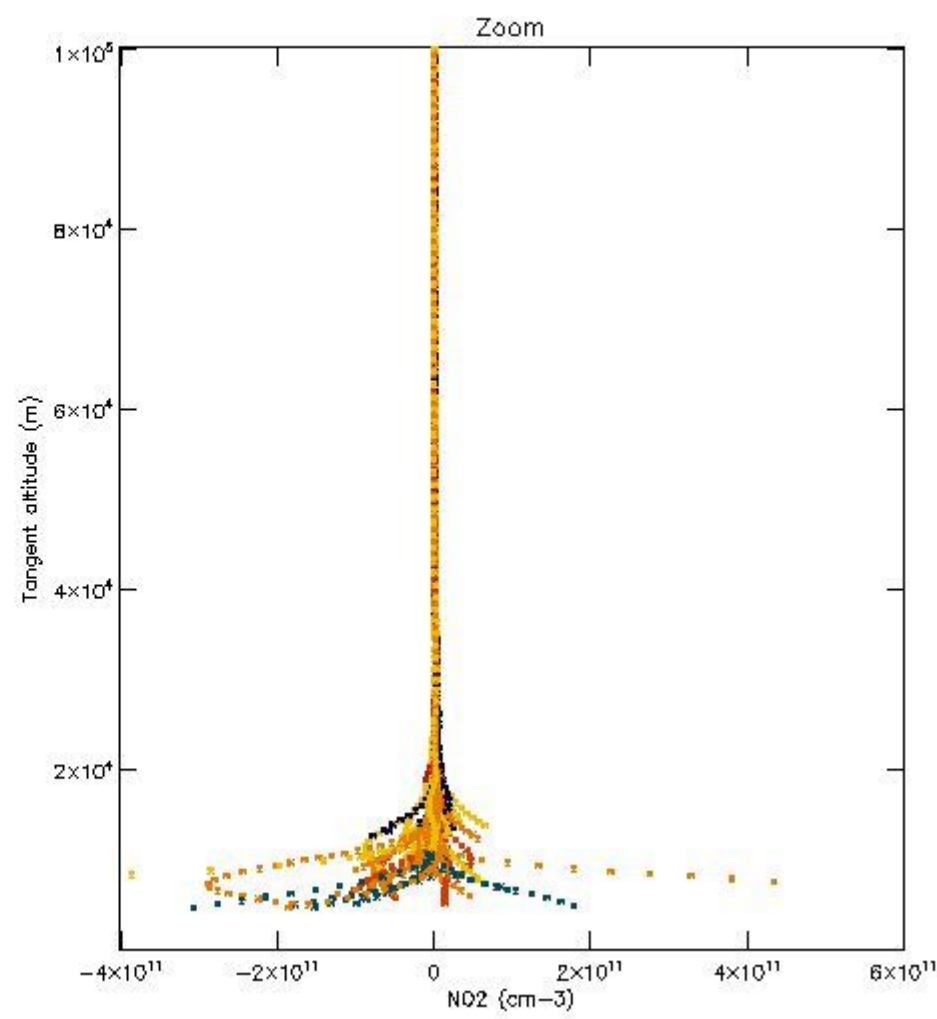
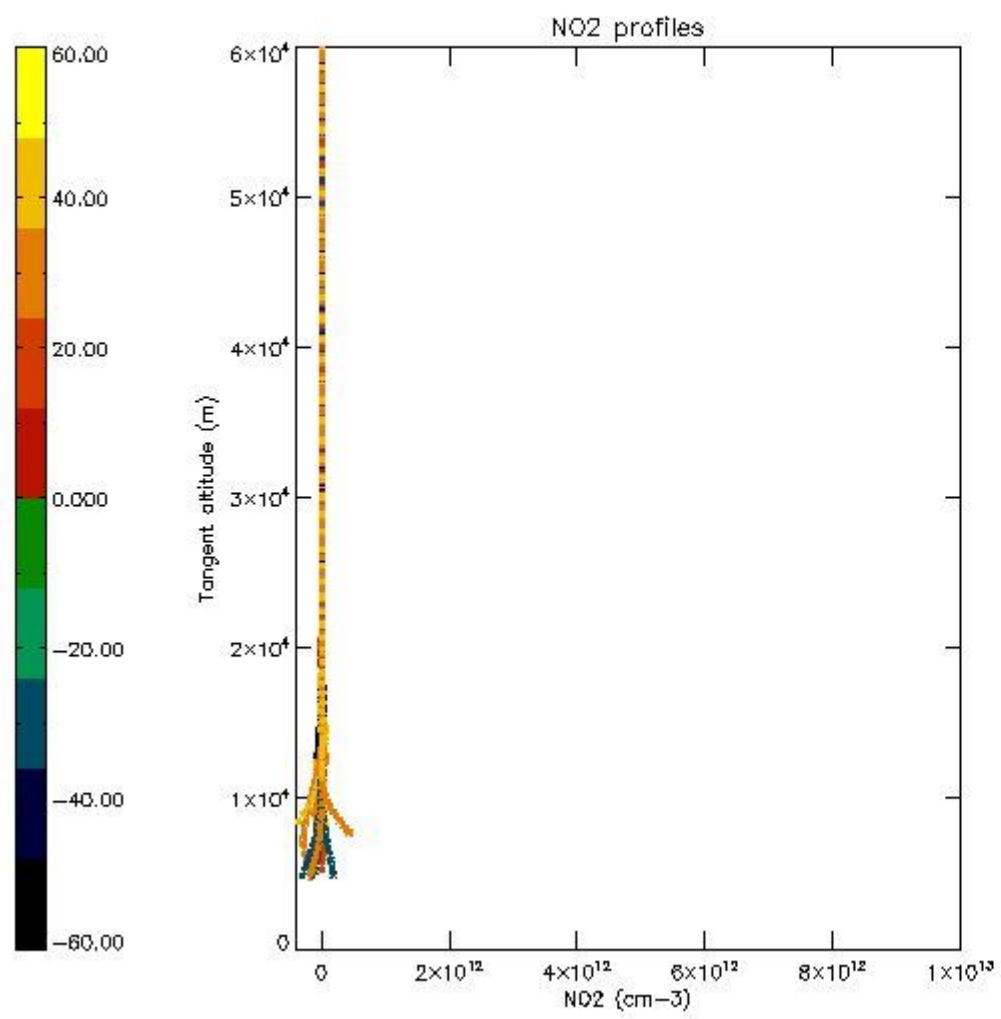
*5.5 Plot ozone profiles where STD < 5% (dark without errors)*

The colorbar represents the latitude.



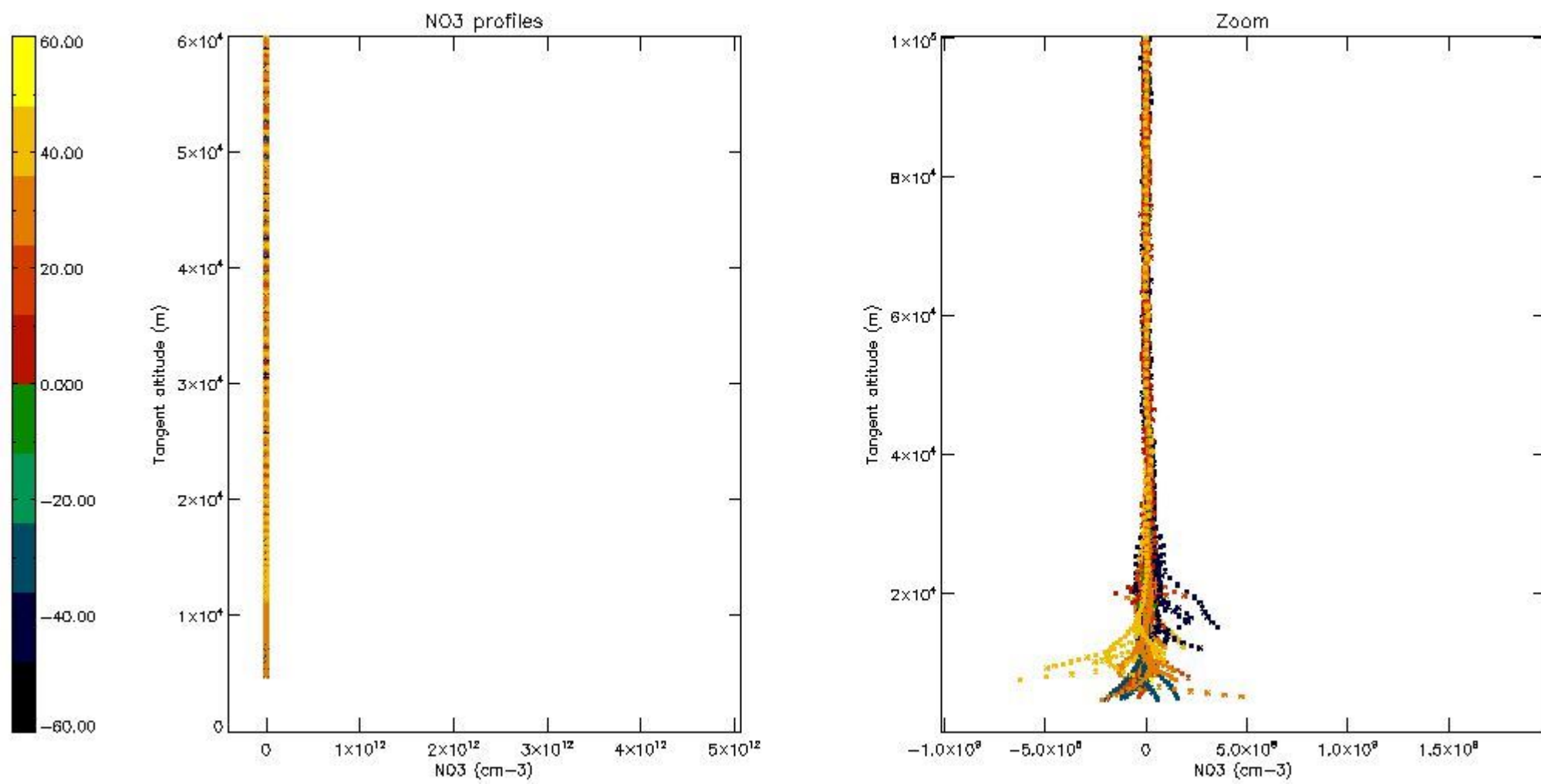
*5.6 Plot NO<sub>2</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



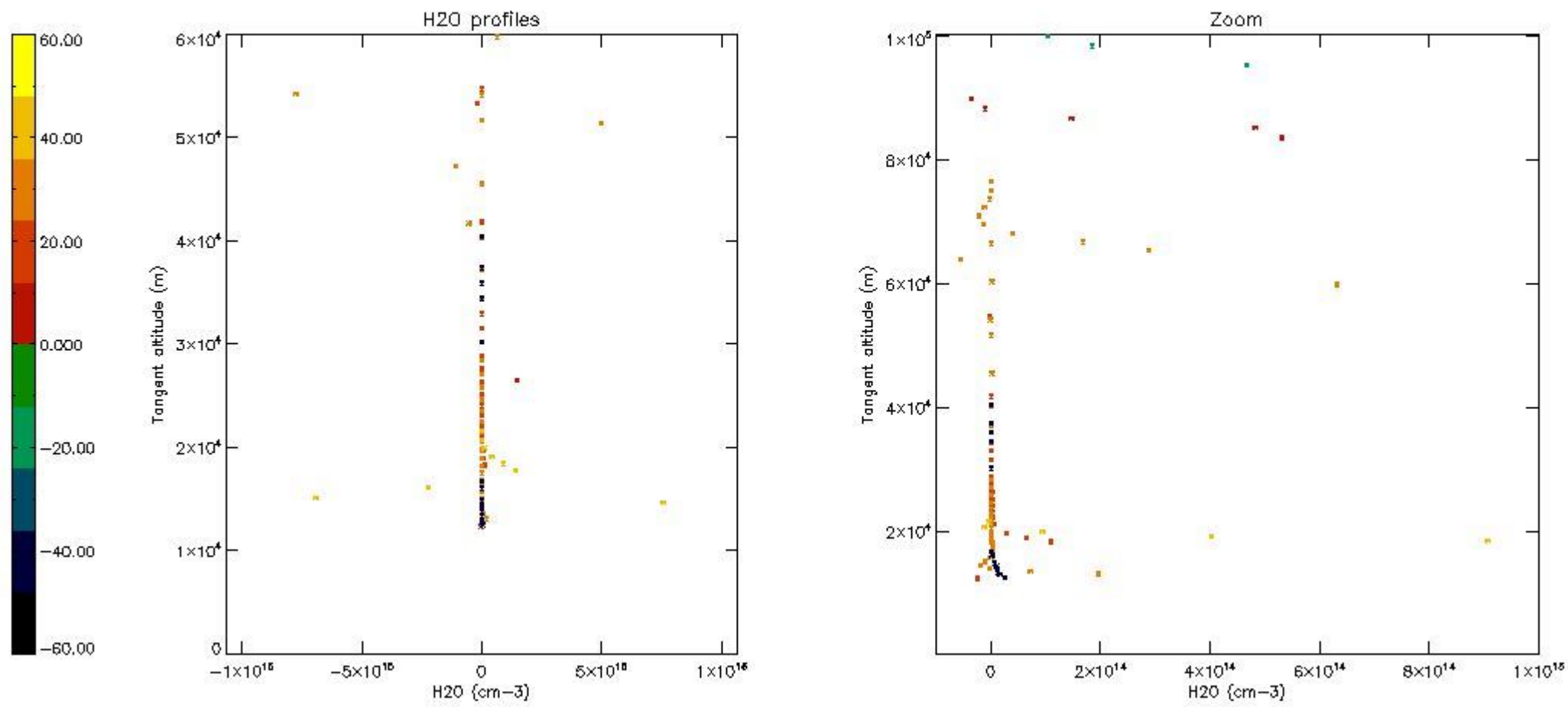
*5.7 Plot NO<sub>3</sub> profiles for all STD (dark without errors)*

The colorbar represents the latitude.



5.8 Plot H2O profiles for all STD (only for occultations of stars 1,2,3,4,13,14,16,26,63 dark without errors)

The colorbar represents the latitude.

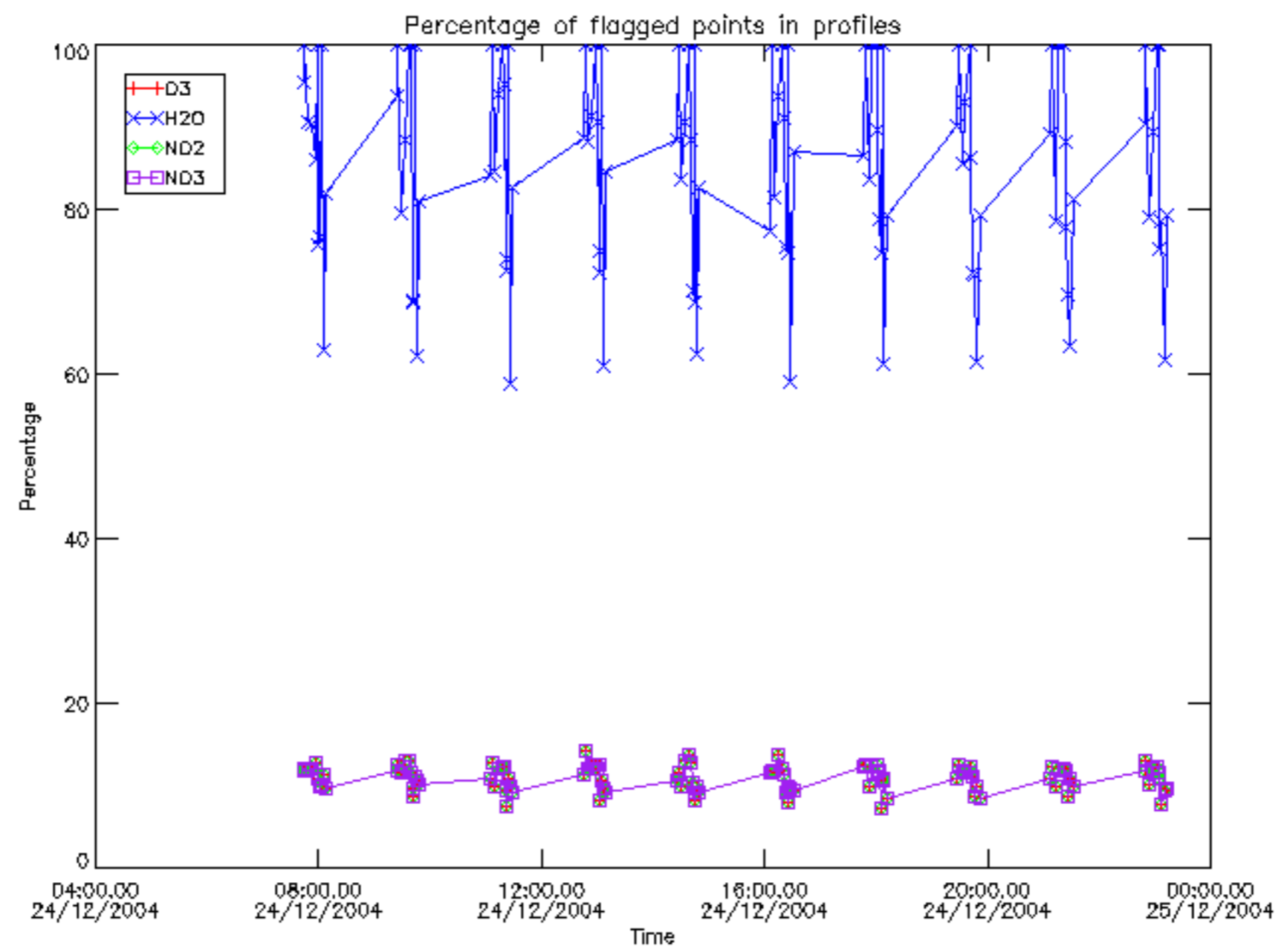


## 6. Auxiliary Data Files used for the production reported in section 2

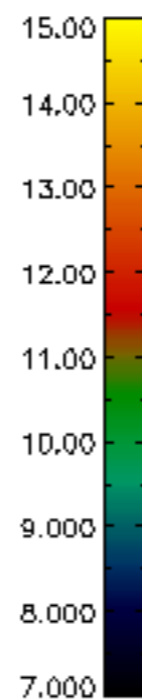
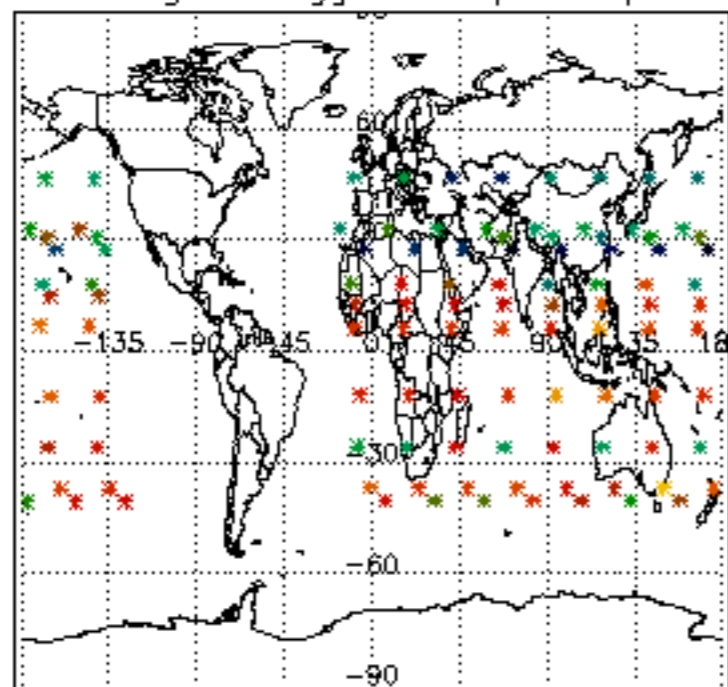
The number reported in the third column indicates since which file (see list in section 2) the corresponding auxiliary file has been used. The fourth column is the date of those product files.

Type	Auxiliary Filename	Used since product	Used since product date
INST_PHYS_CHARACTERISTICS	GOM_INS_AXVIEC20091111_143220_20030716_120000_20500101_000000	1	24-DEC-2004 07:09:51
LEVEL-2_PROC_CONFIG	GOM_PR2_AXVIEC20091111_152718_20020301_000000_20500101_000000	1	24-DEC-2004 07:09:51
CROSS_SECTIONS_FILE	GOM_CRS_AXVIEC20091111_154832_20020301_000000_20500101_000000	1	24-DEC-2004 07:09:51

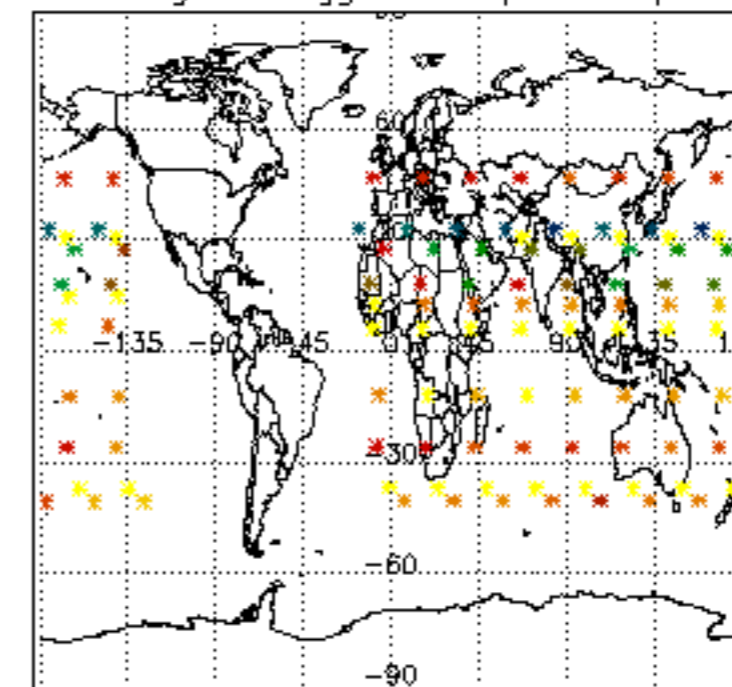




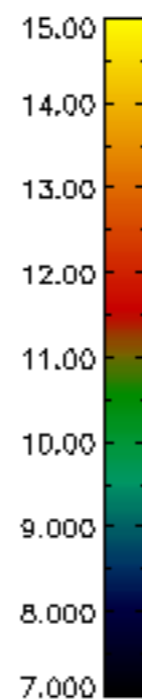
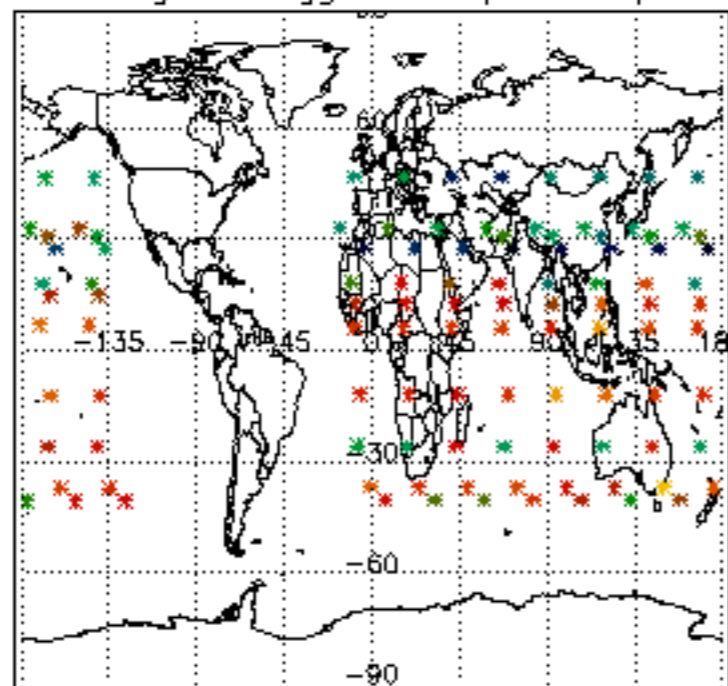
Percentage of flagged data per D3 profile



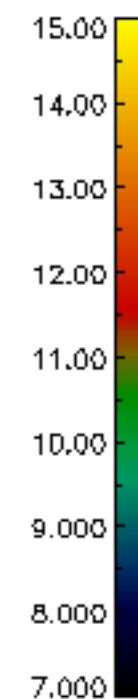
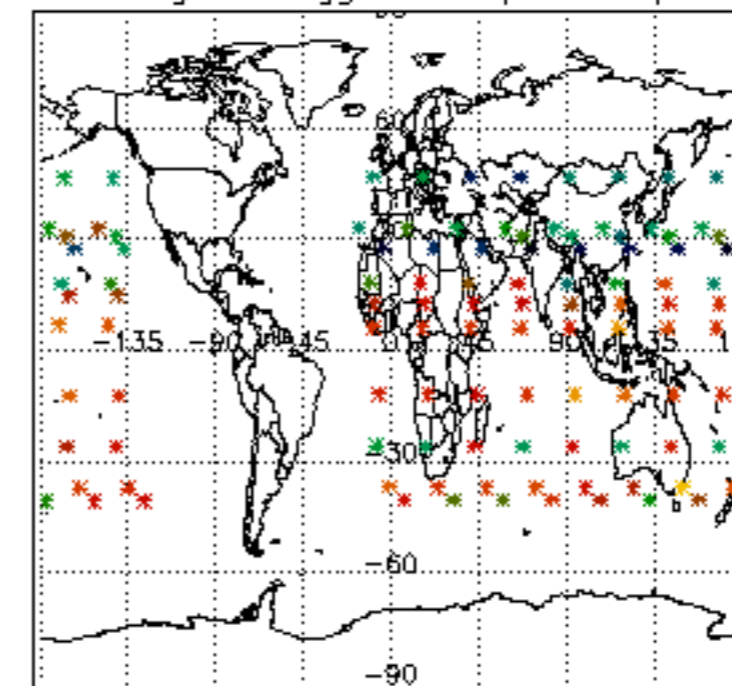
Percentage of flagged data per H2O profile

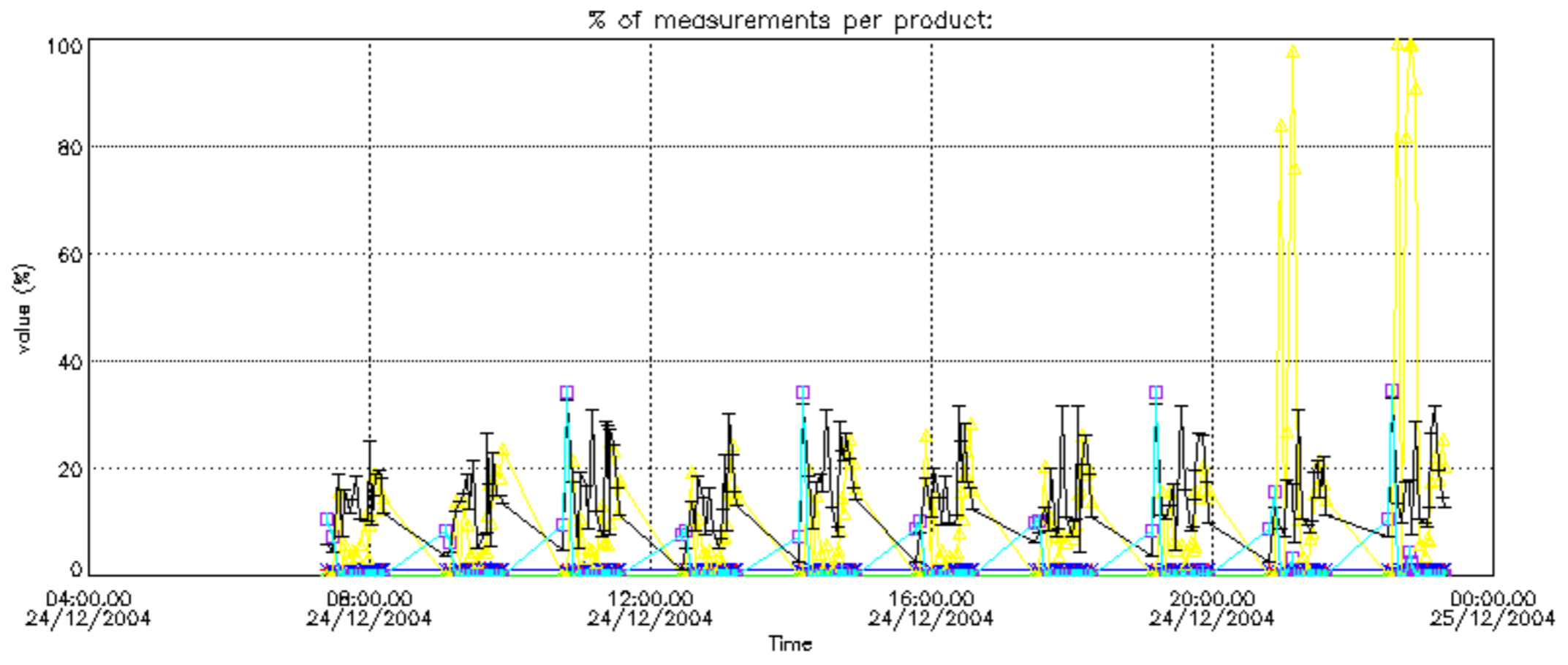


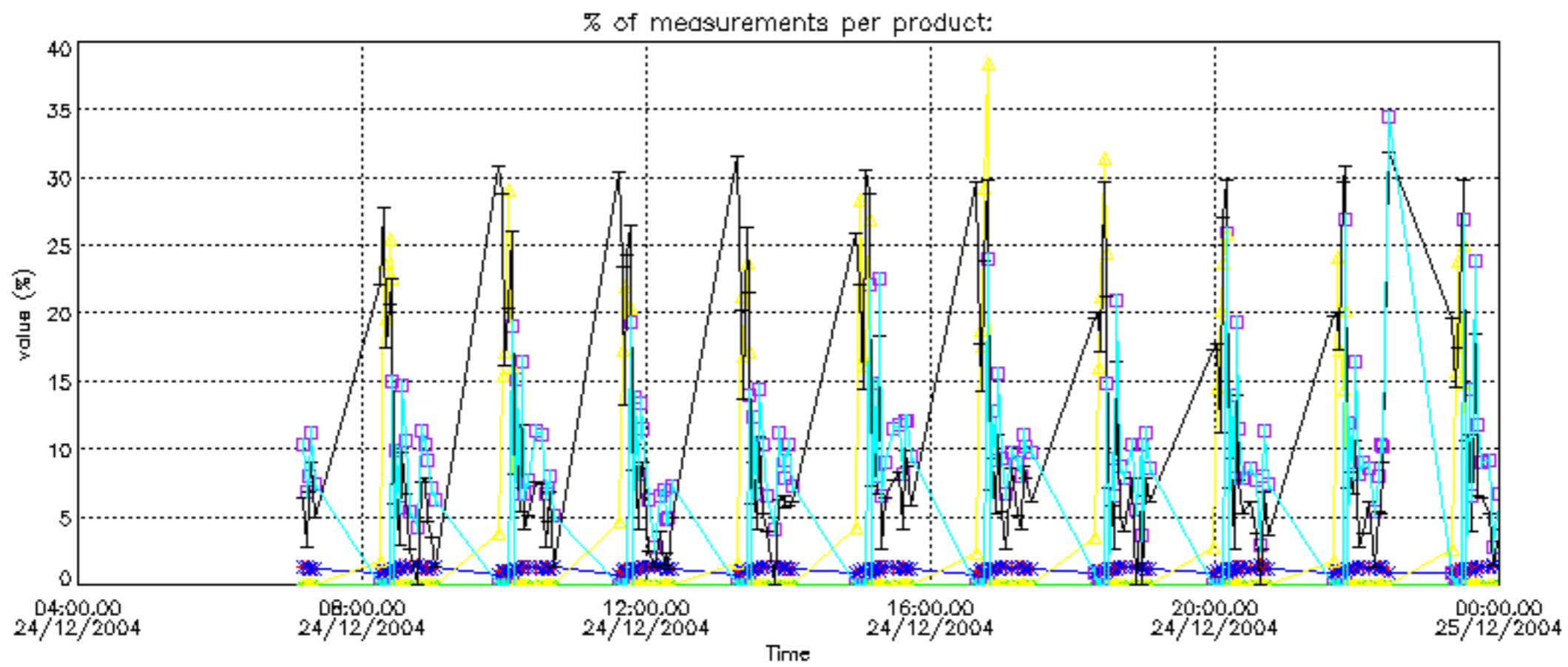
Percentage of flagged data per NO2 profile



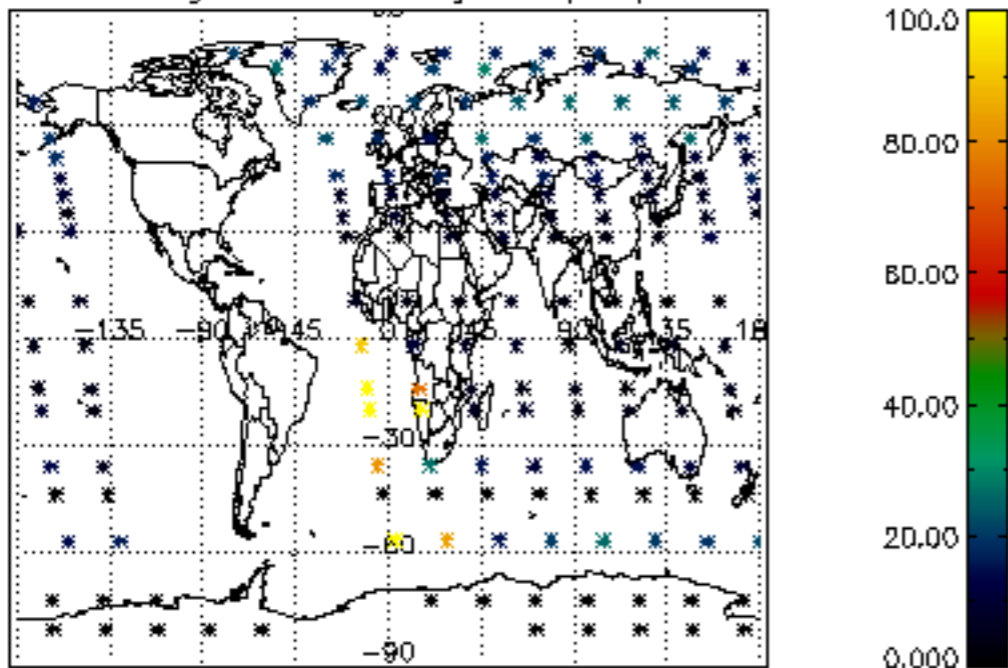
Percentage of flagged data per NO3 profile



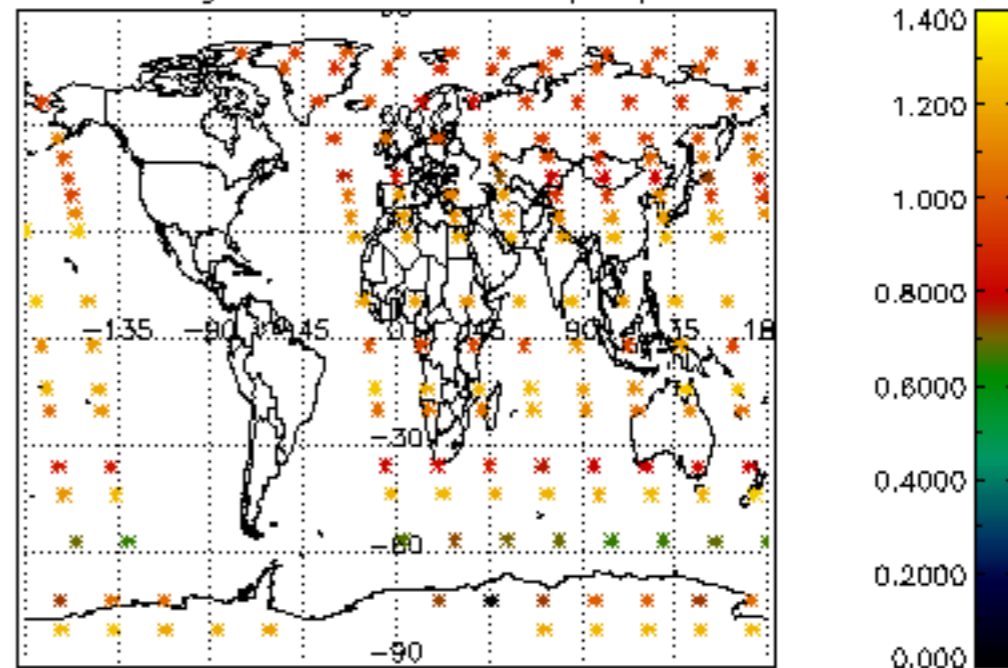




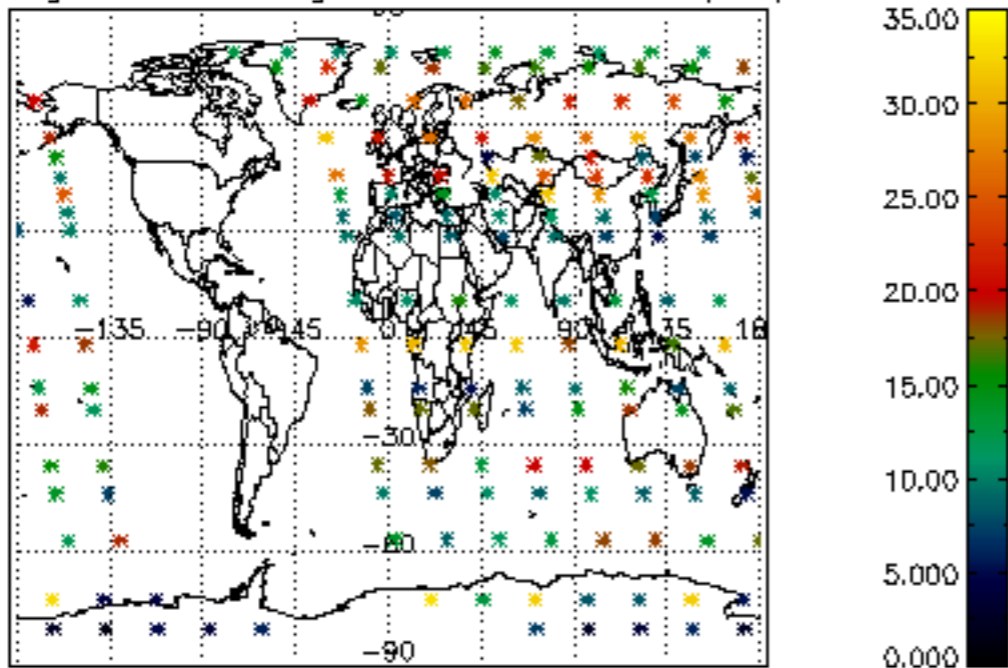
Percentage of cosmic ray hits per profile



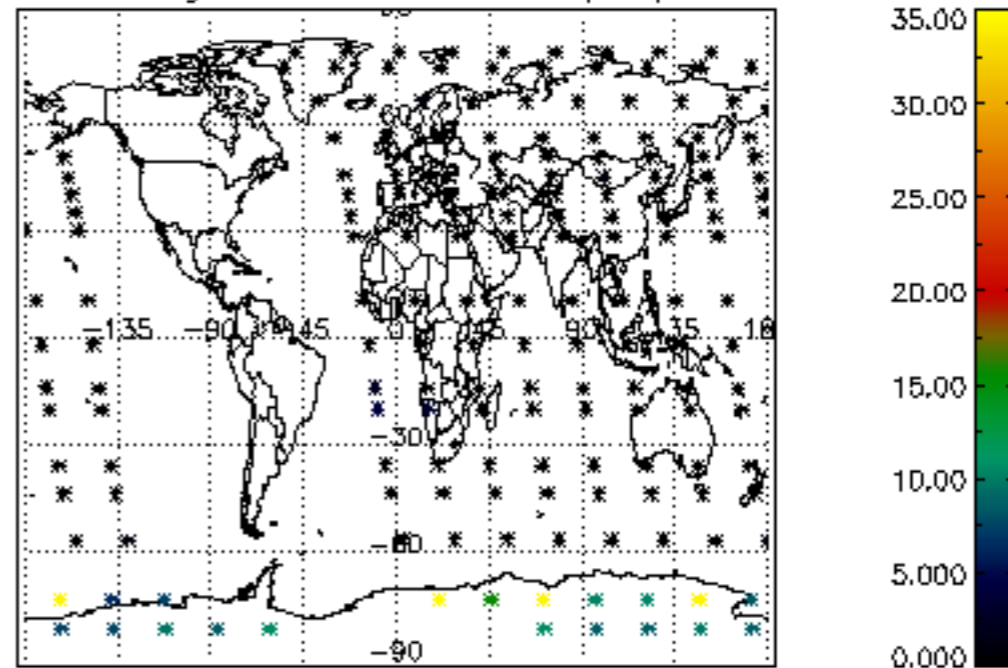
Percentage of datation errors per profile



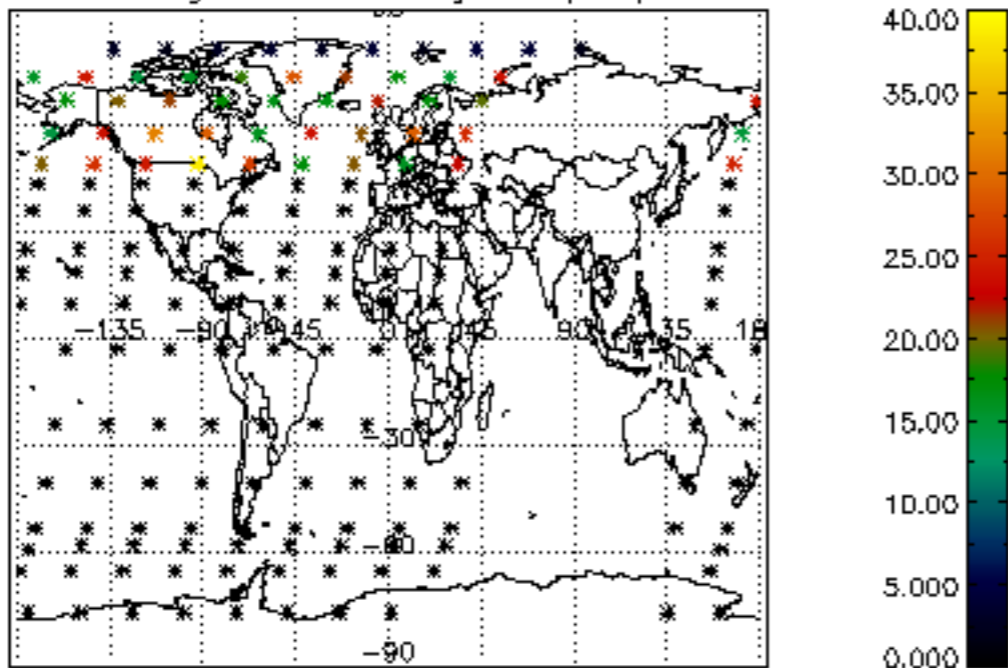
Percentage of star falling outside central band per profile



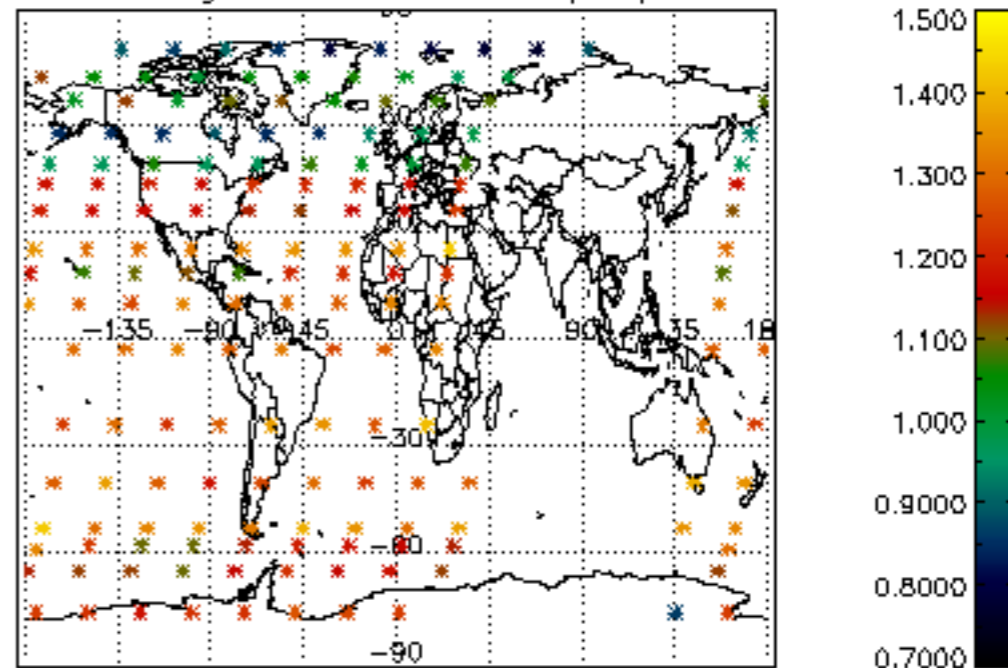
Percentage of saturation errors per profile



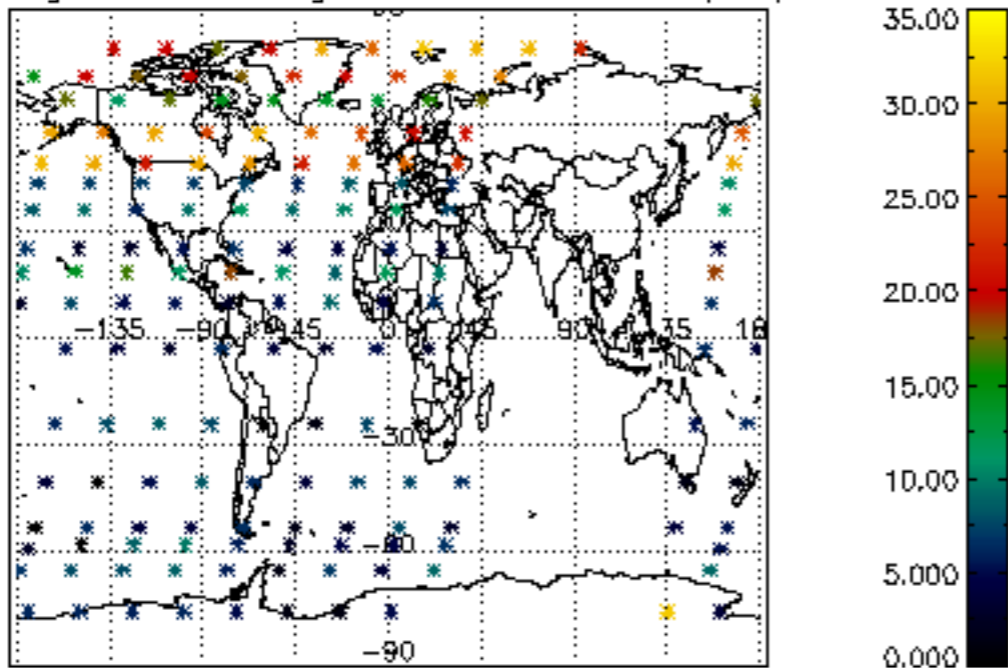
Percentage of cosmic ray hits per profile



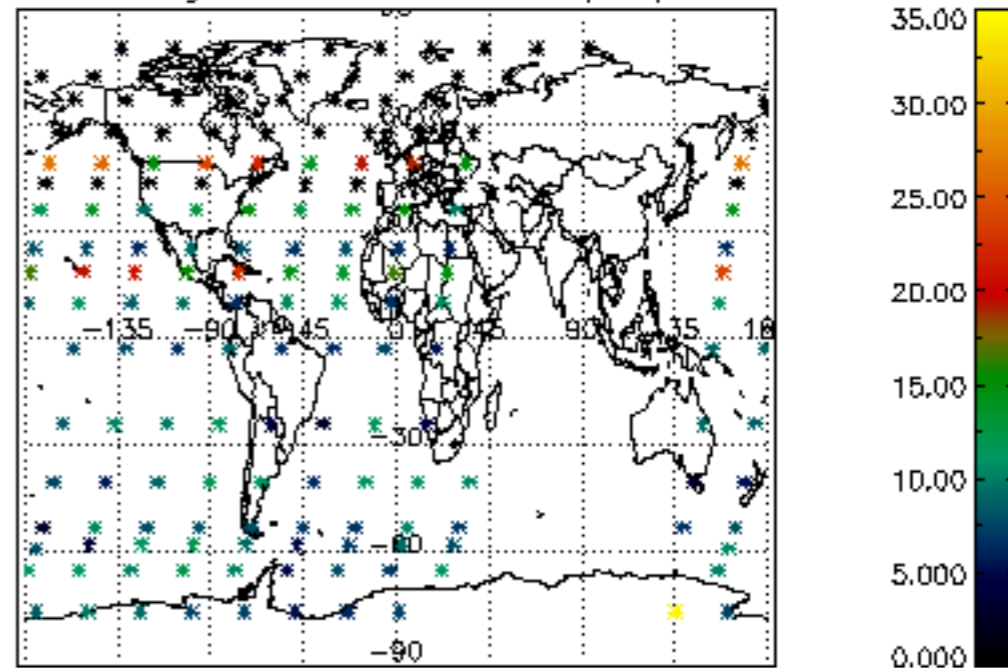
Percentage of datation errors per profile

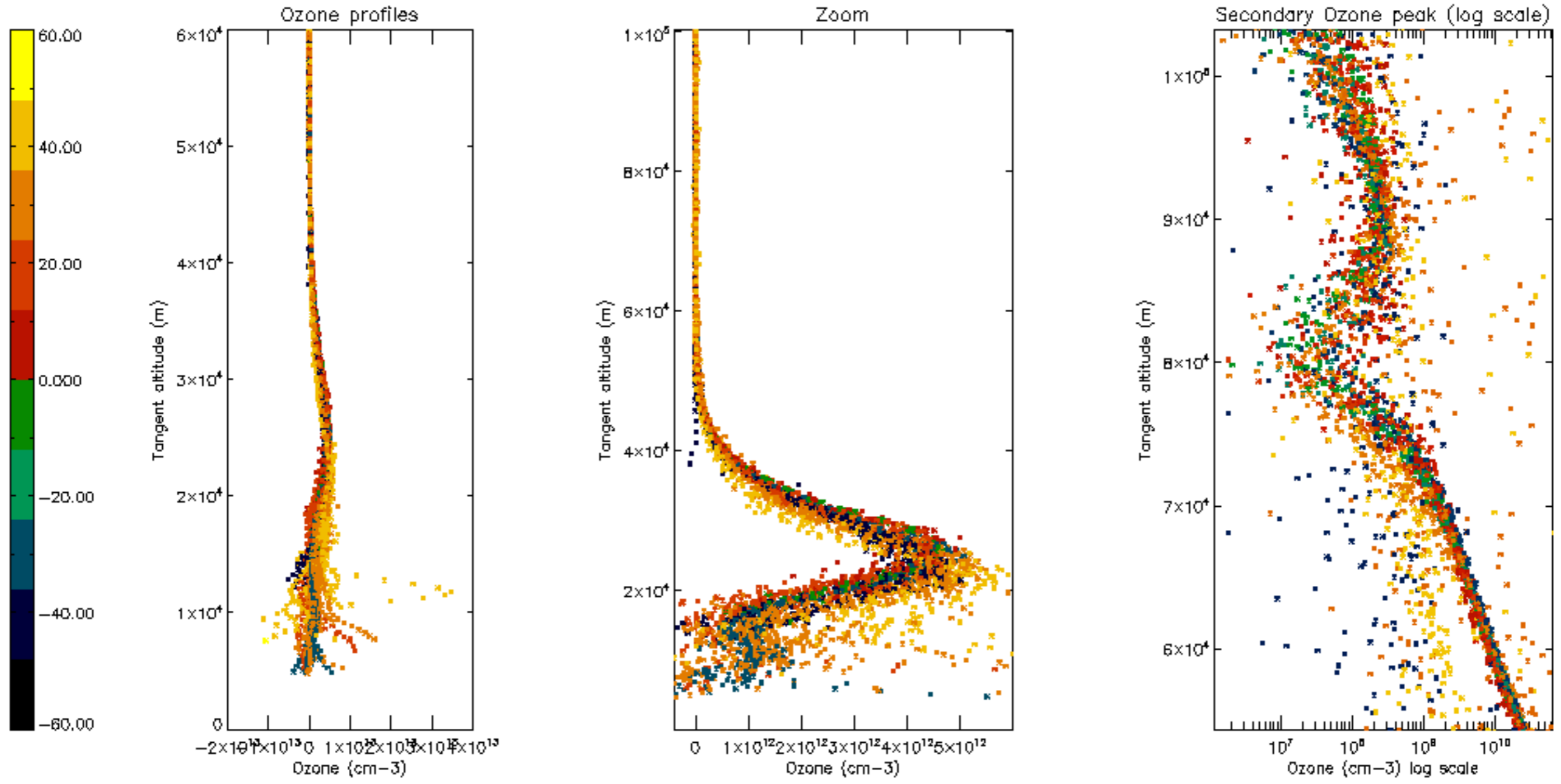


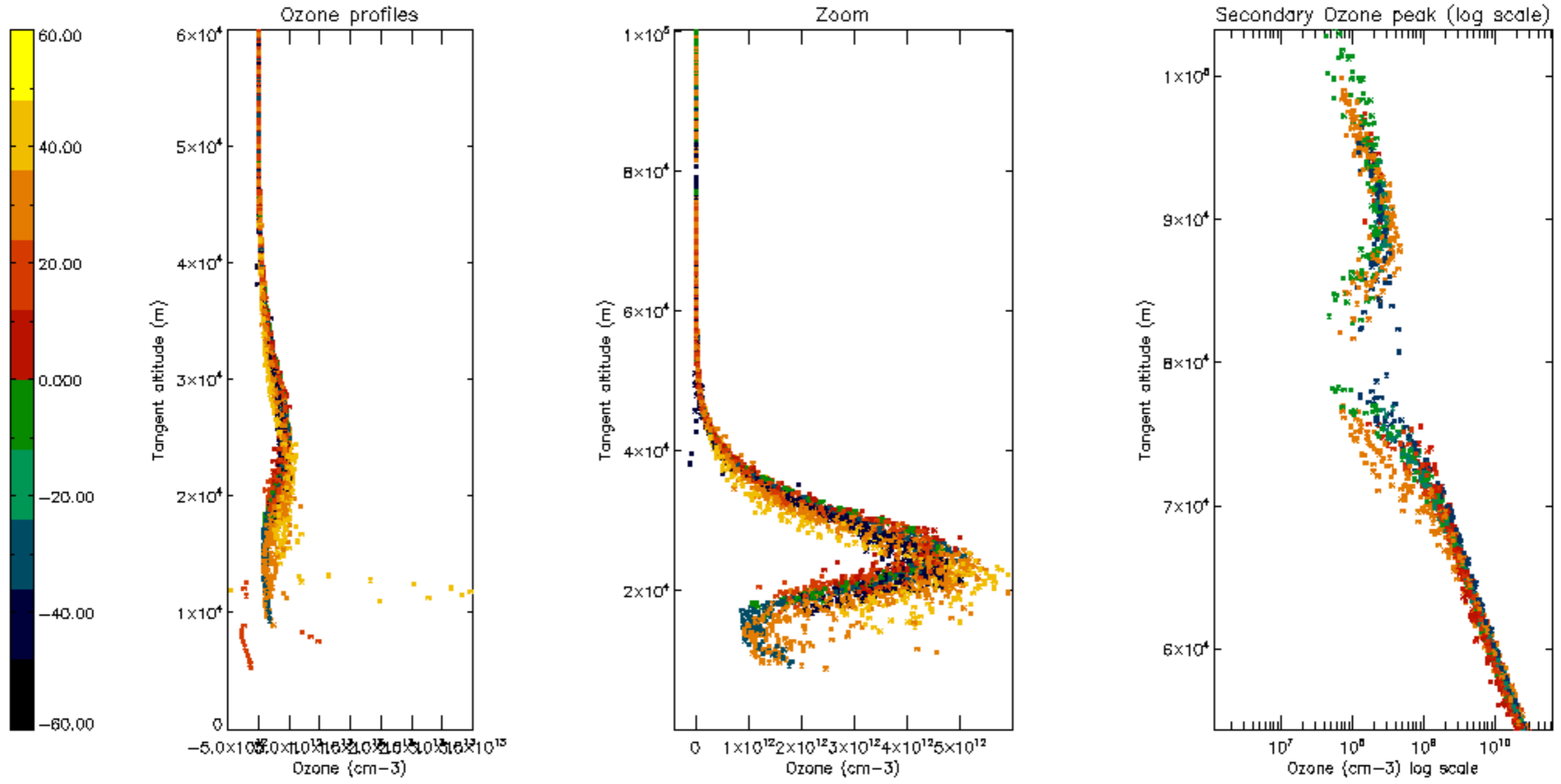
Percentage of star falling outside central band per profile



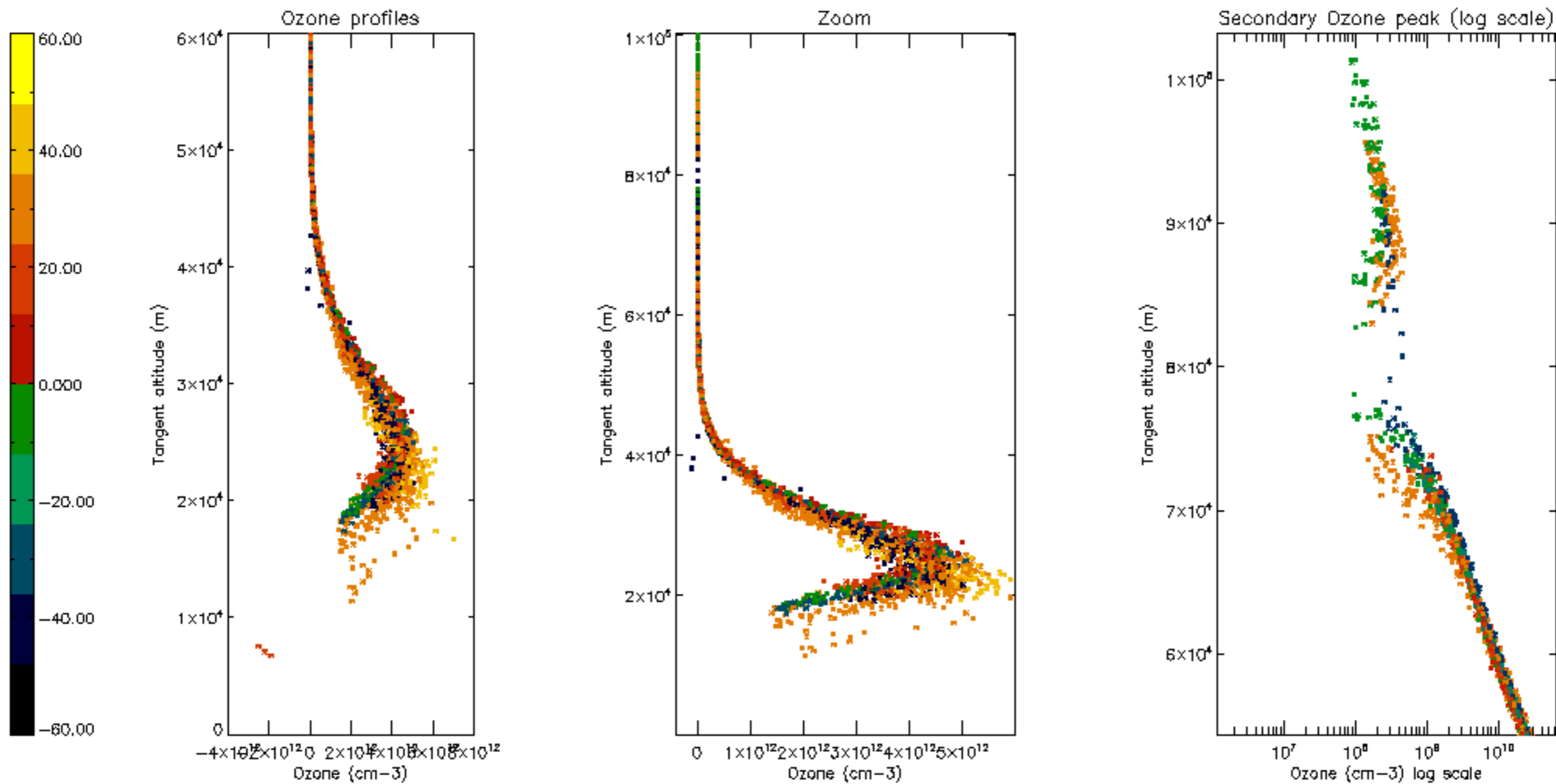
Percentage of saturation errors per profile

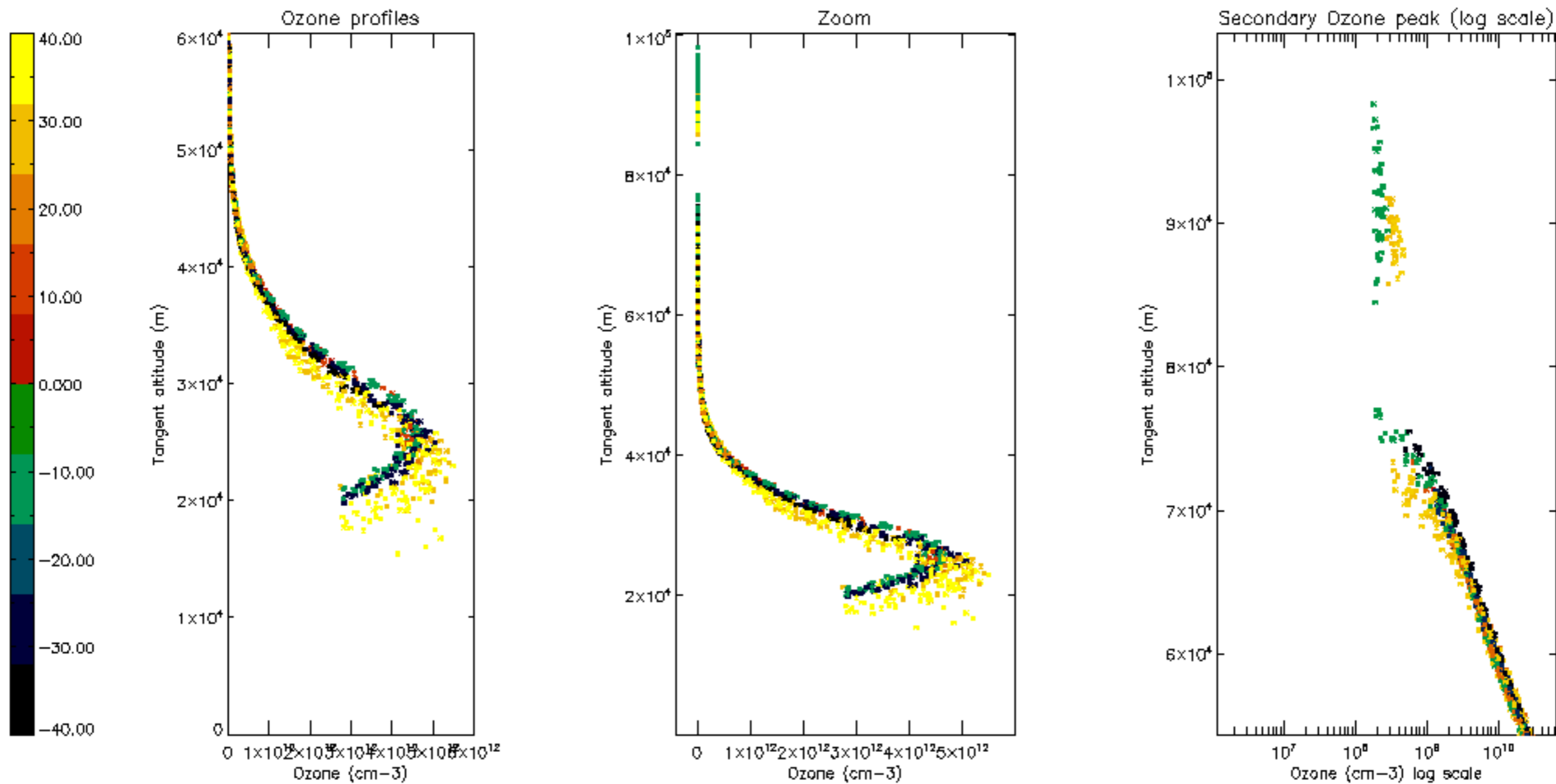


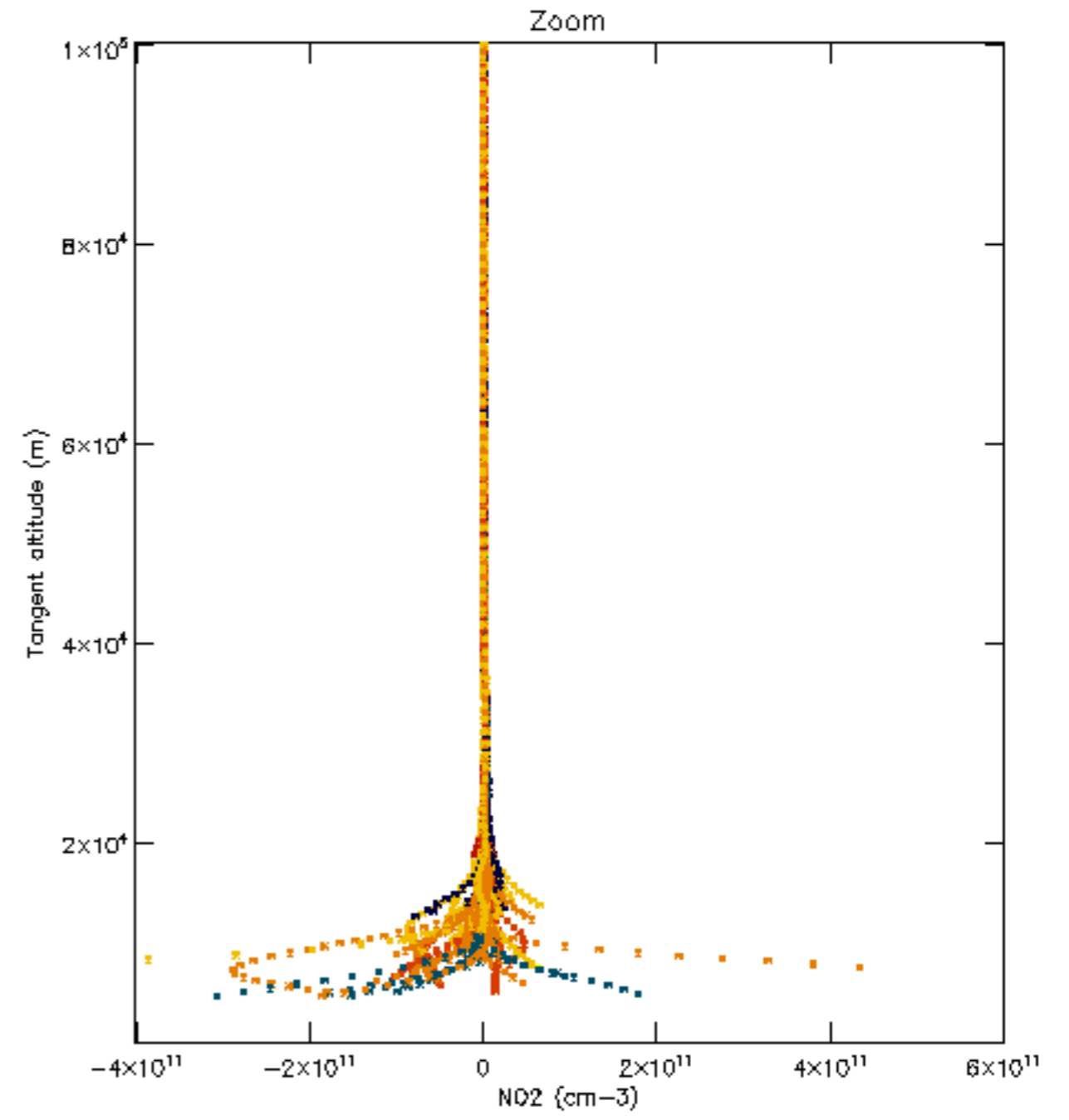
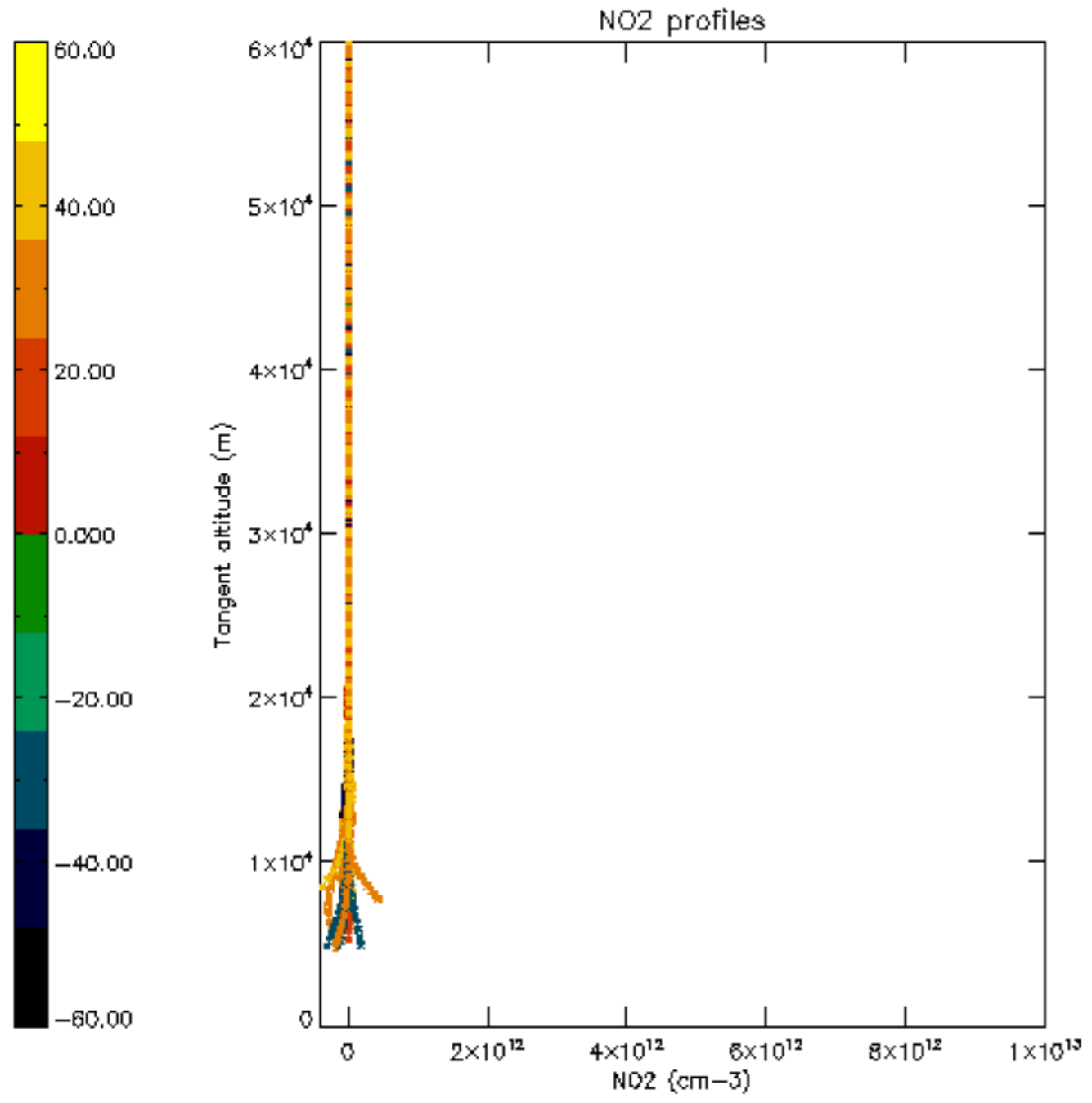


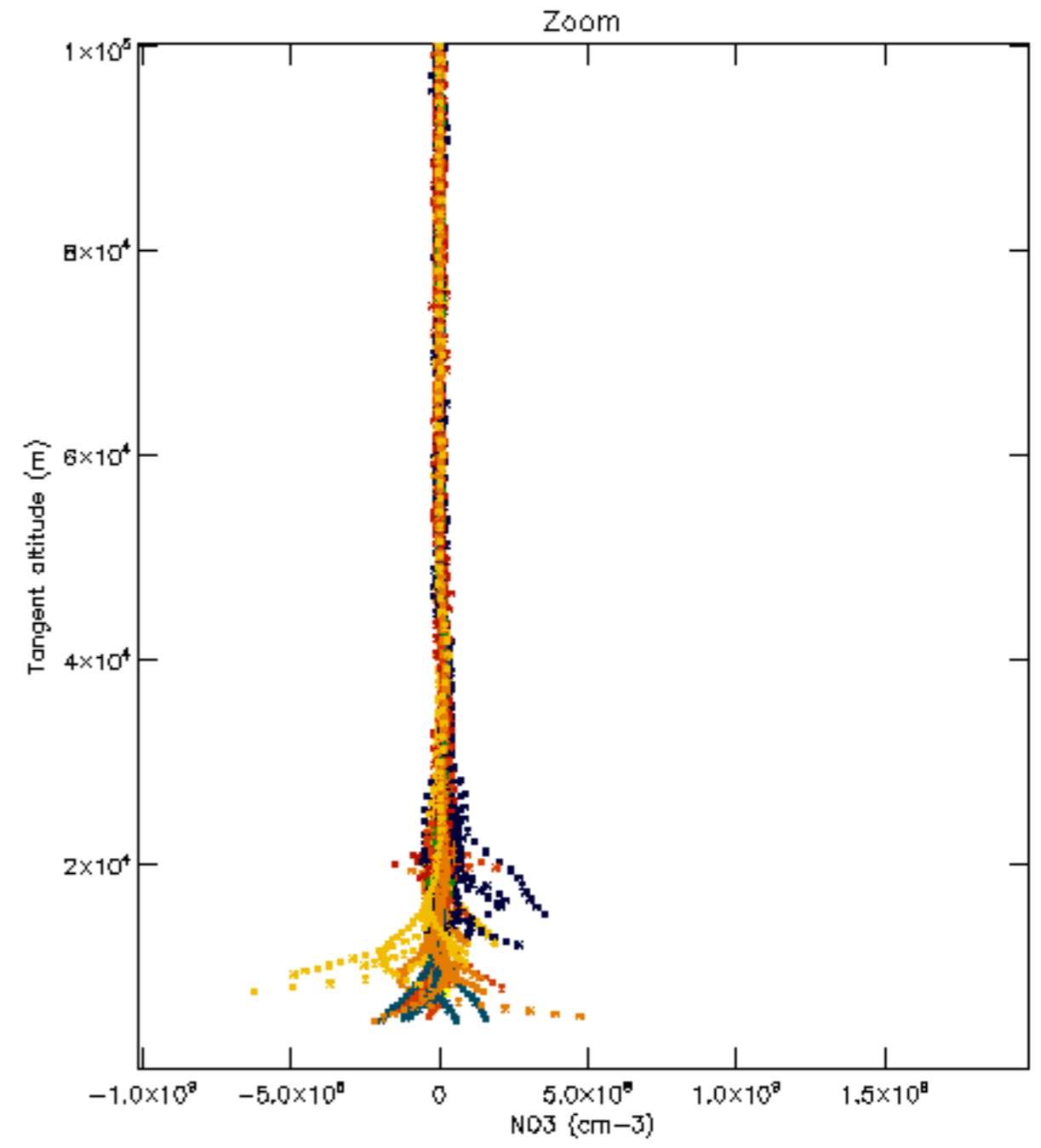
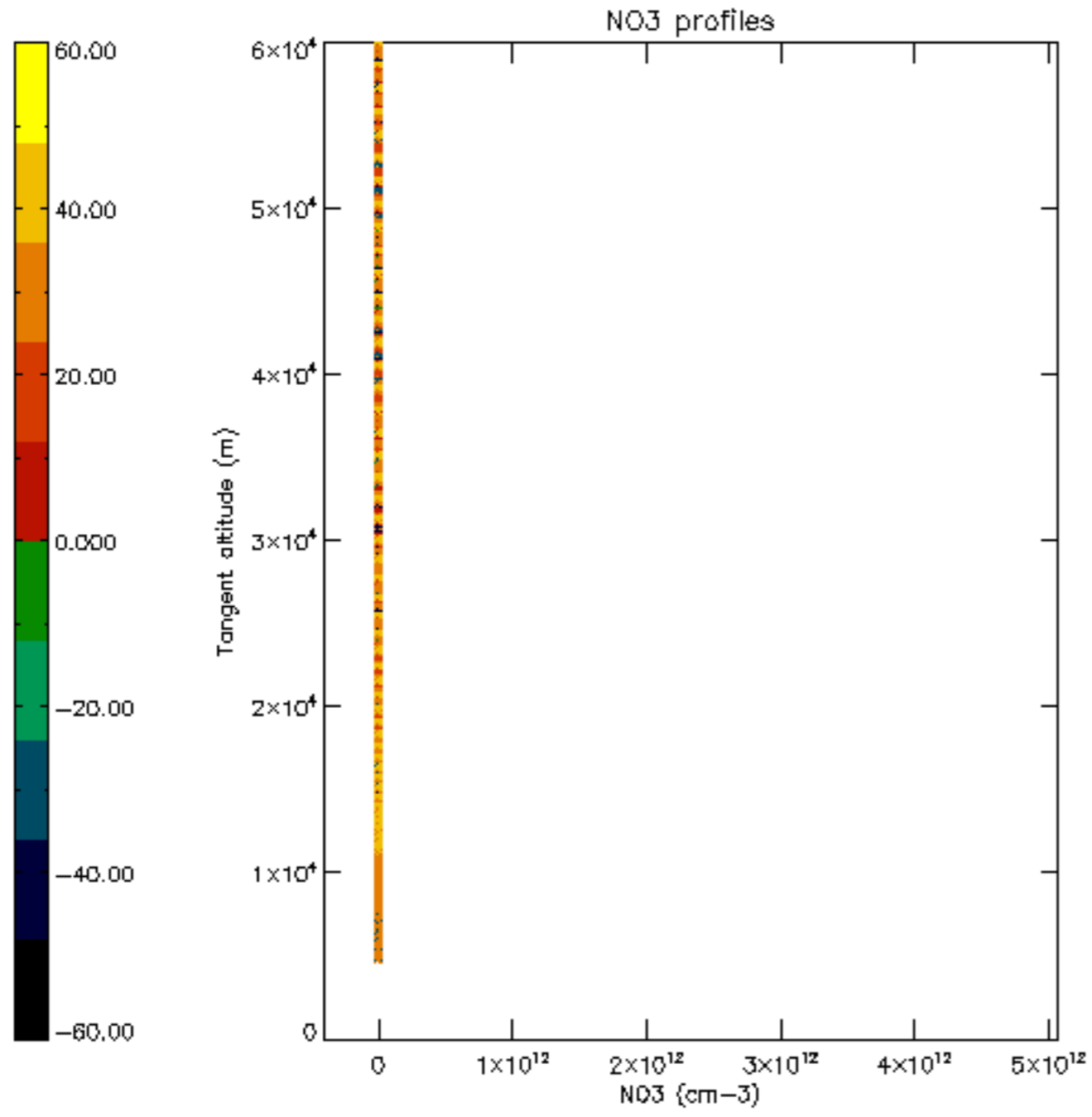


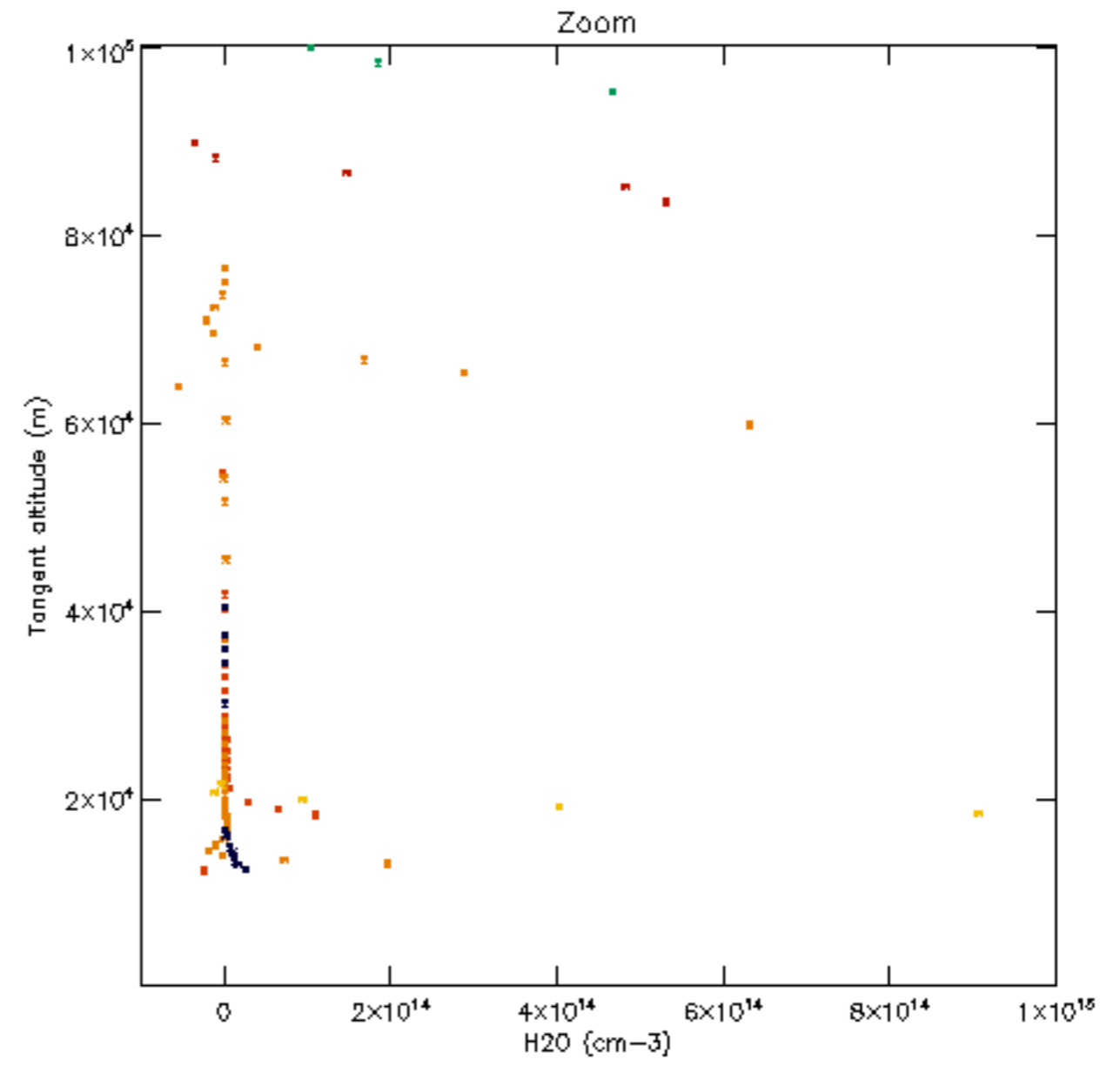
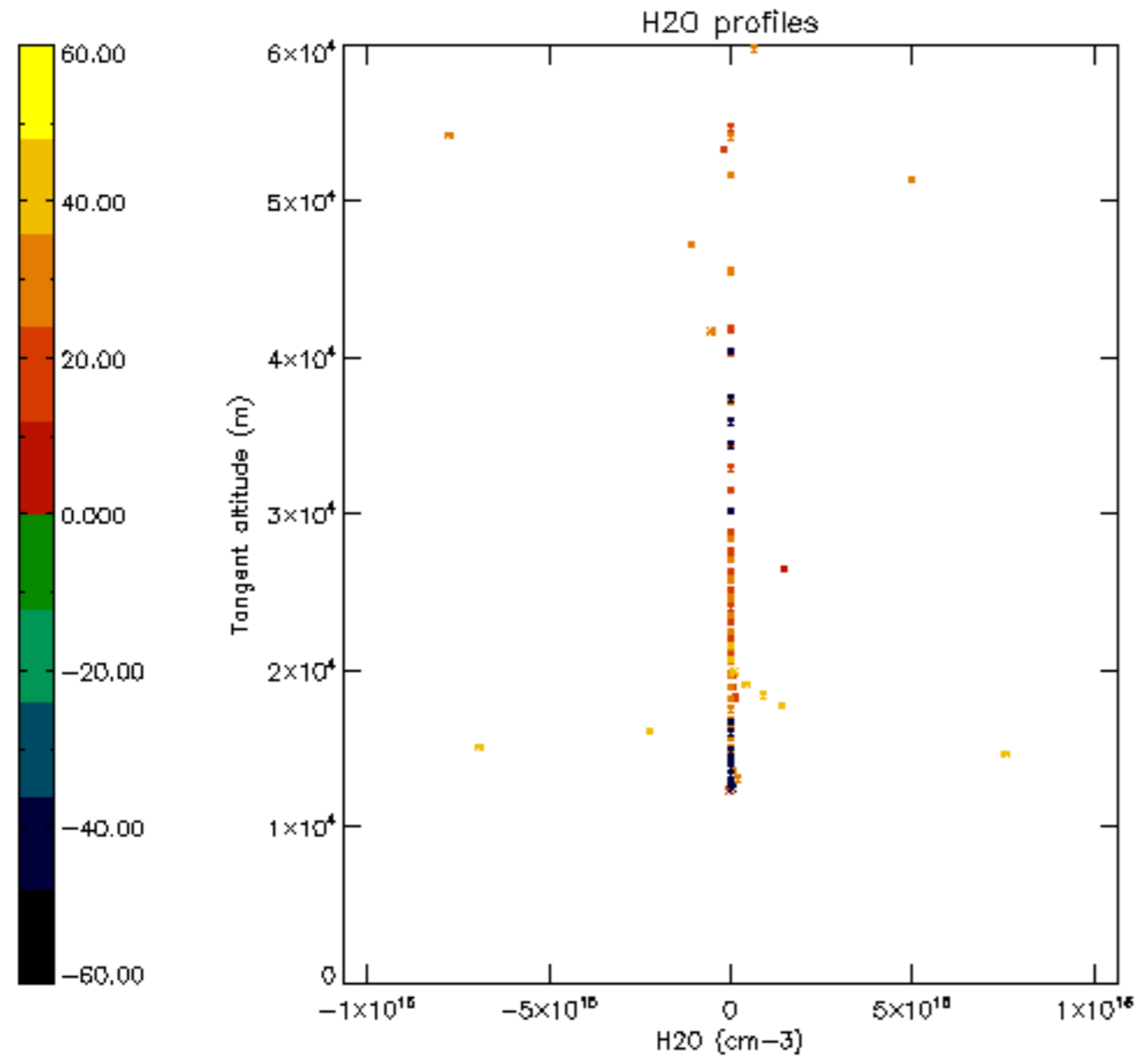


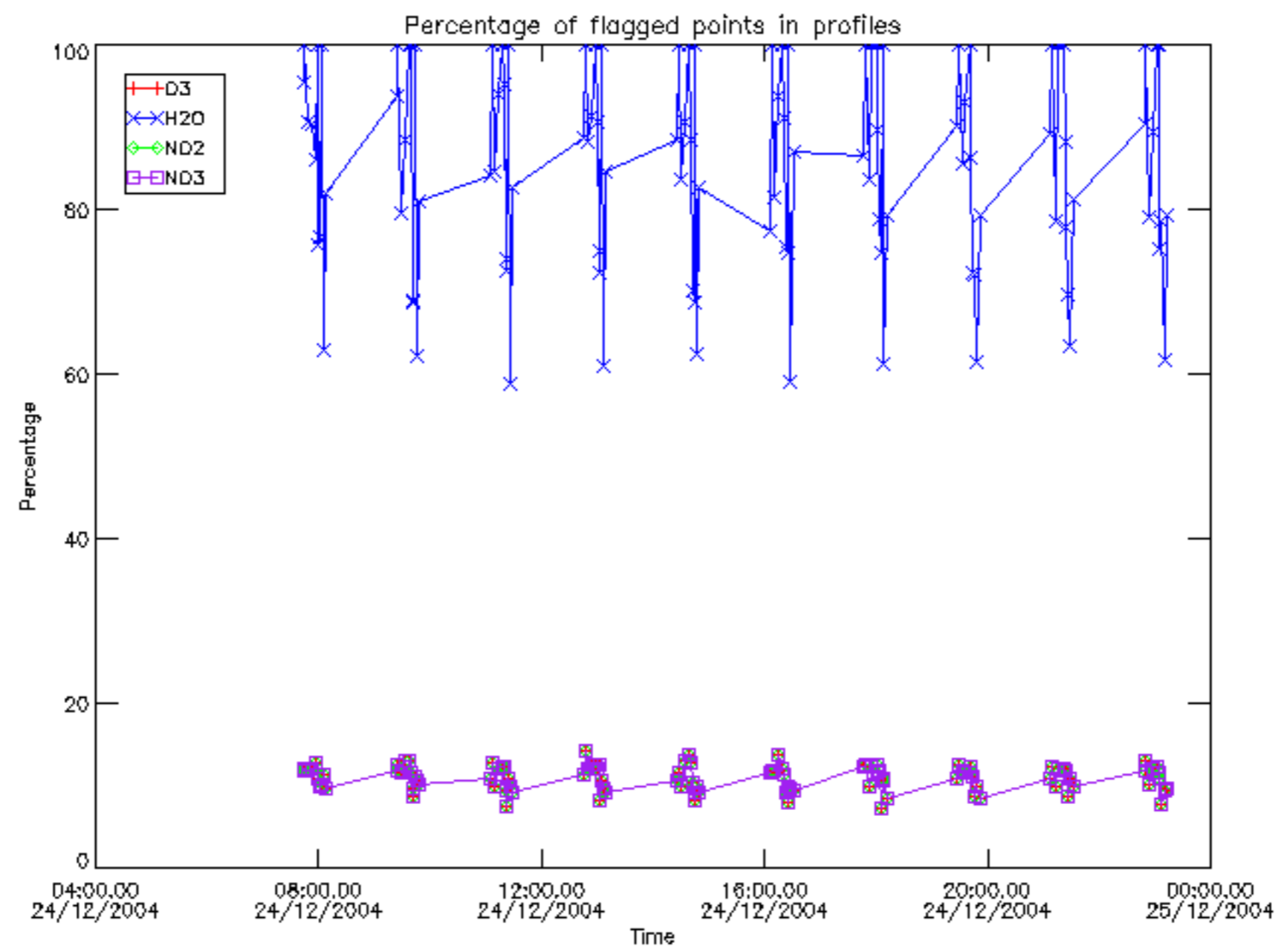




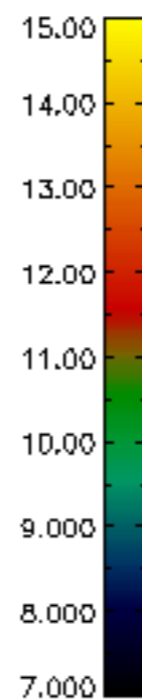
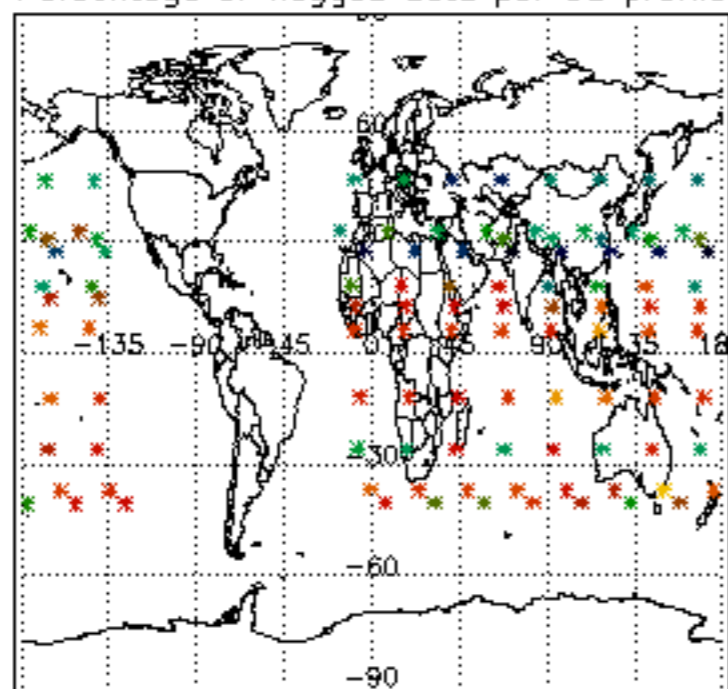




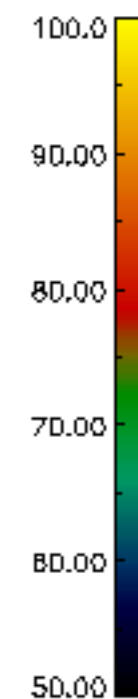
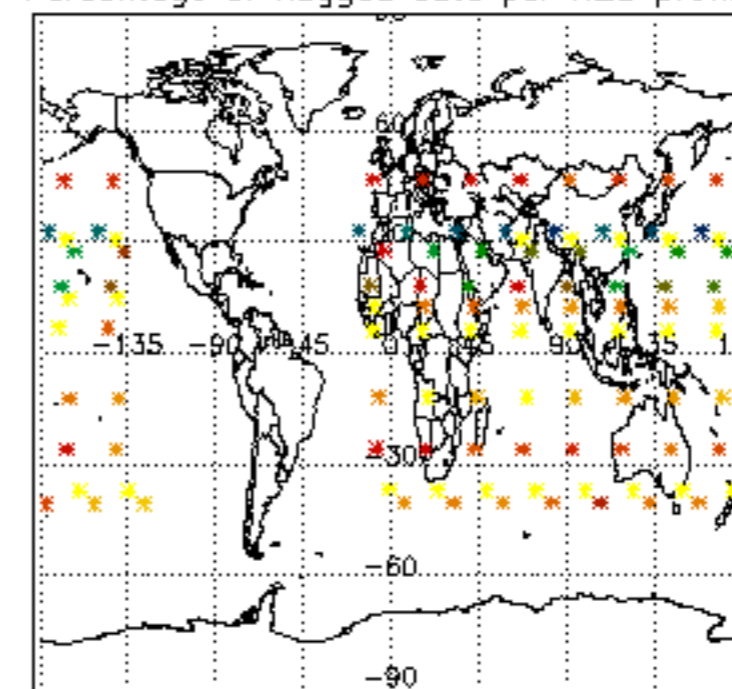




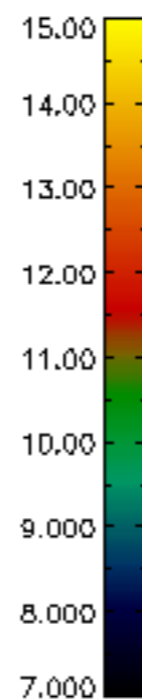
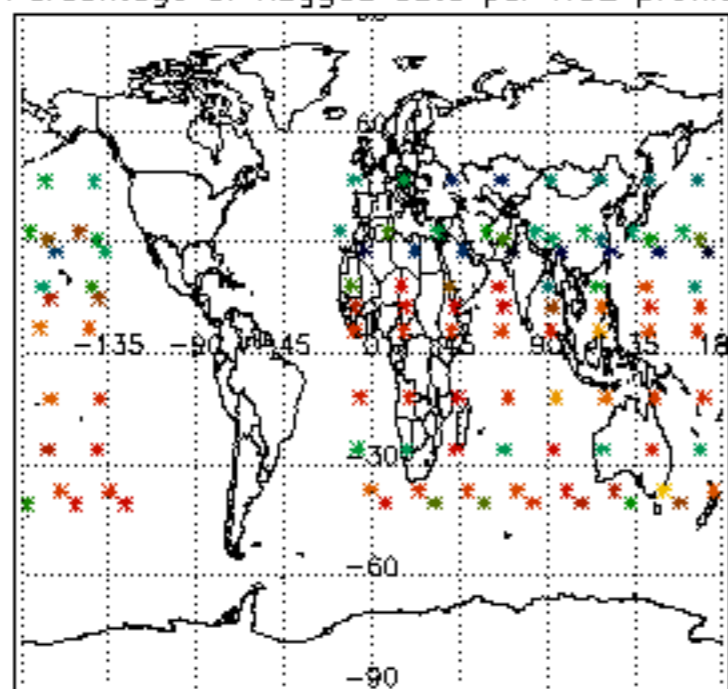
Percentage of flagged data per D3 profile



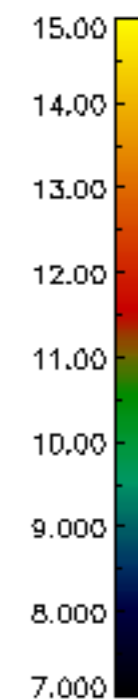
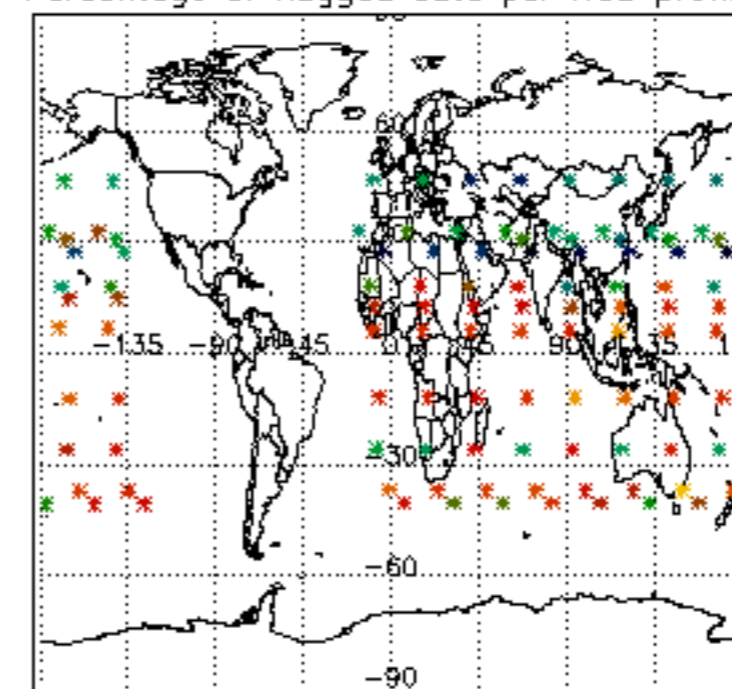
Percentage of flagged data per H2O profile

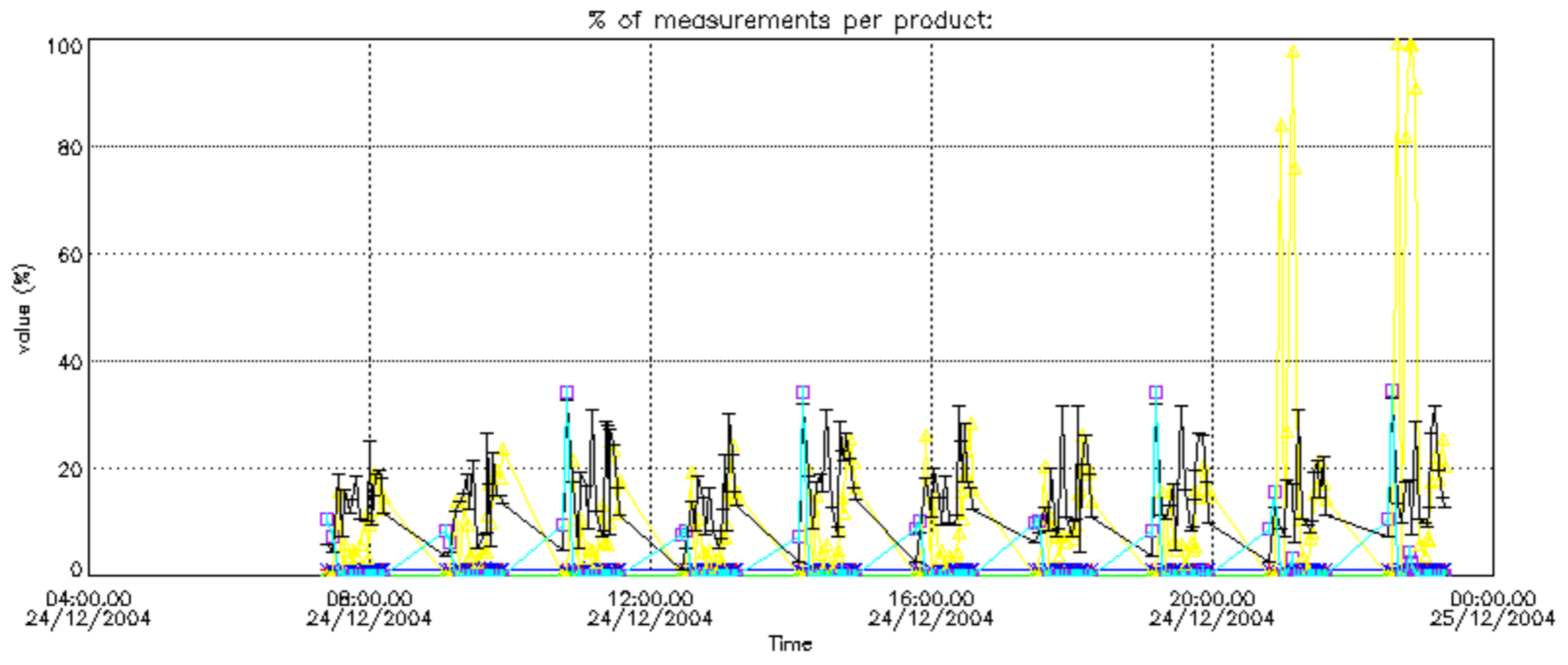


Percentage of flagged data per NO2 profile

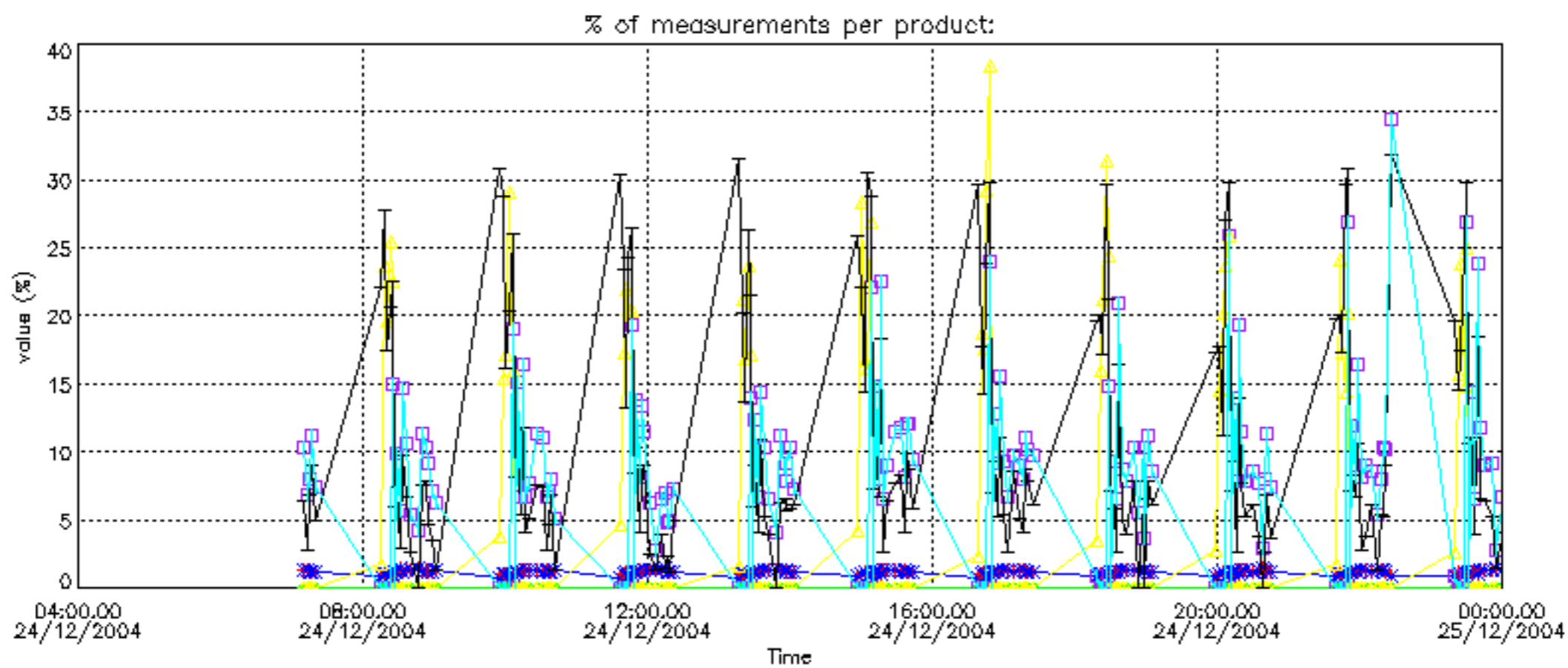


Percentage of flagged data per NO3 profile

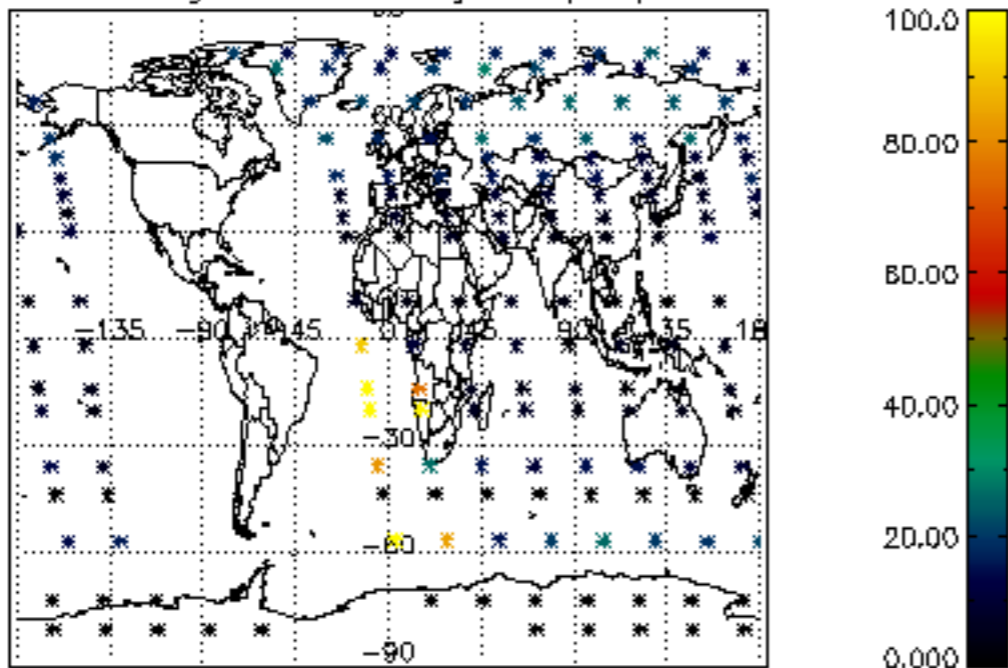




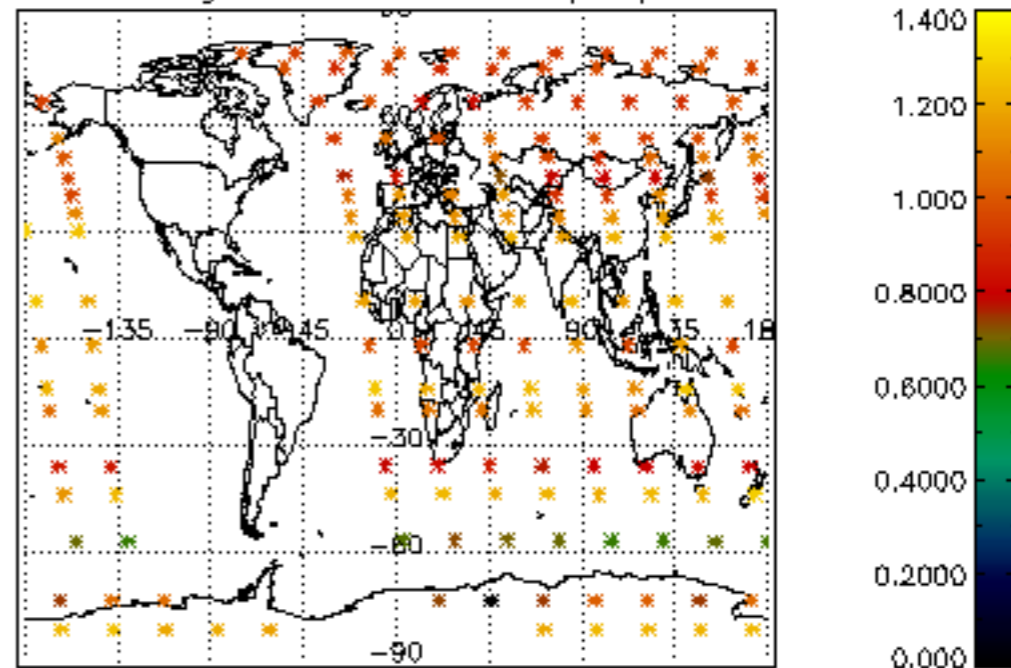




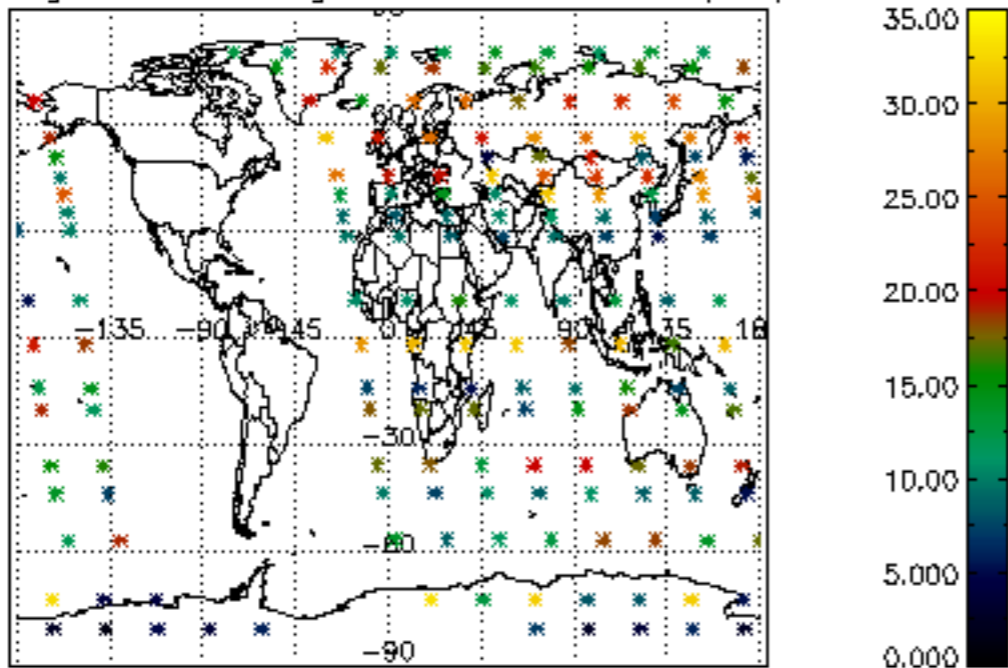
Percentage of cosmic ray hits per profile



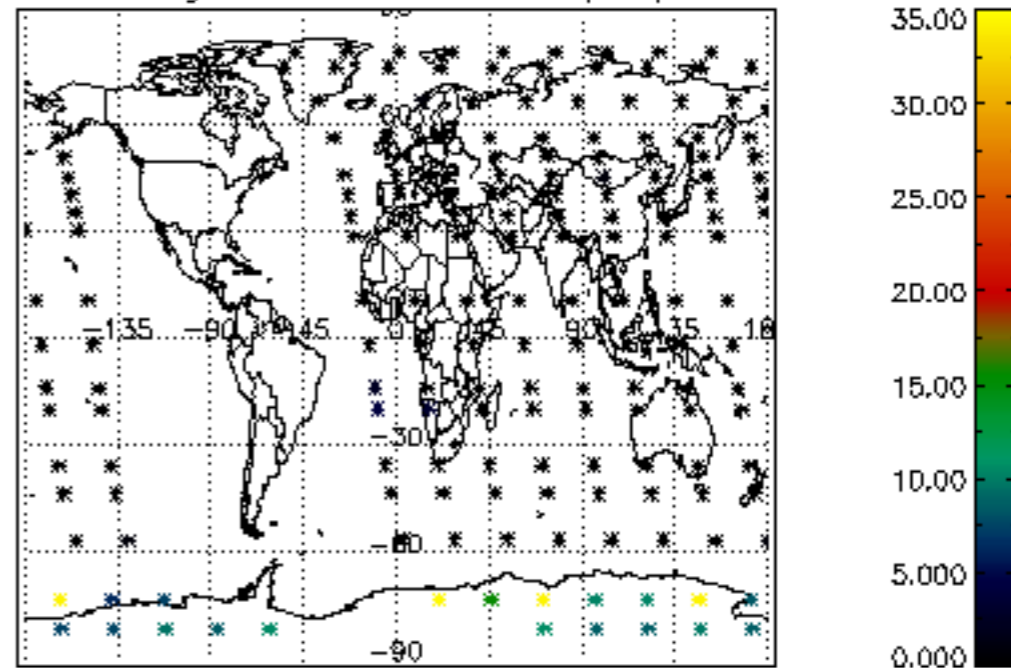
Percentage of datation errors per profile



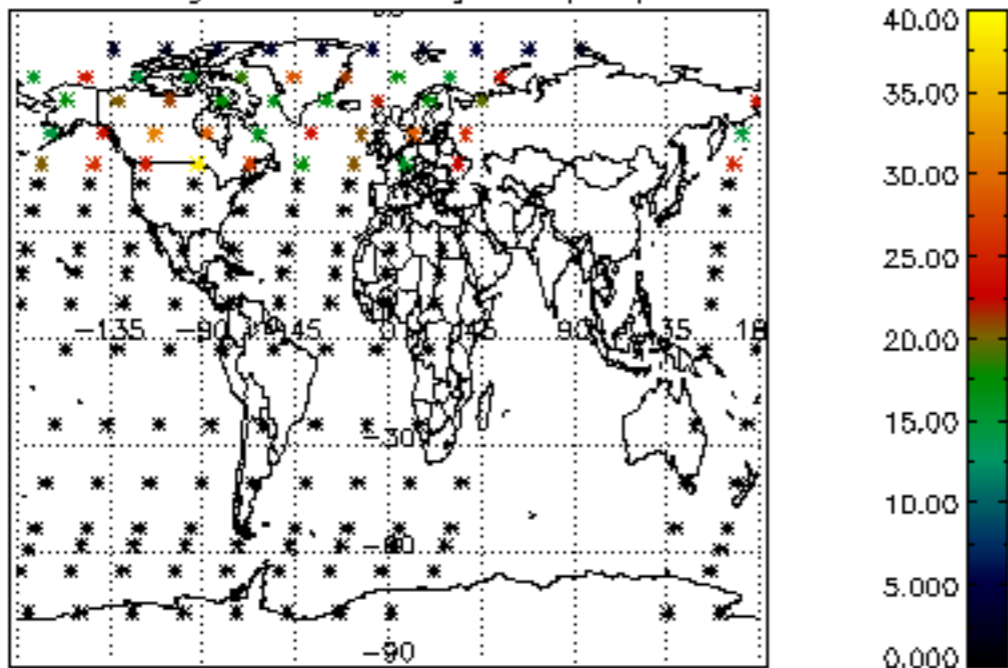
Percentage of star falling outside central band per profile



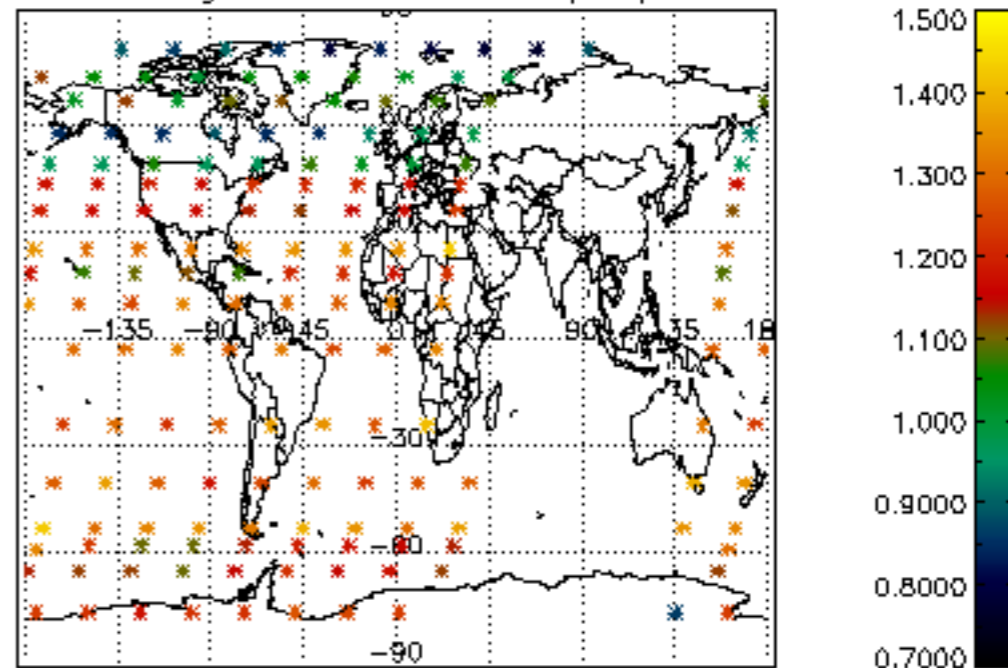
Percentage of saturation errors per profile



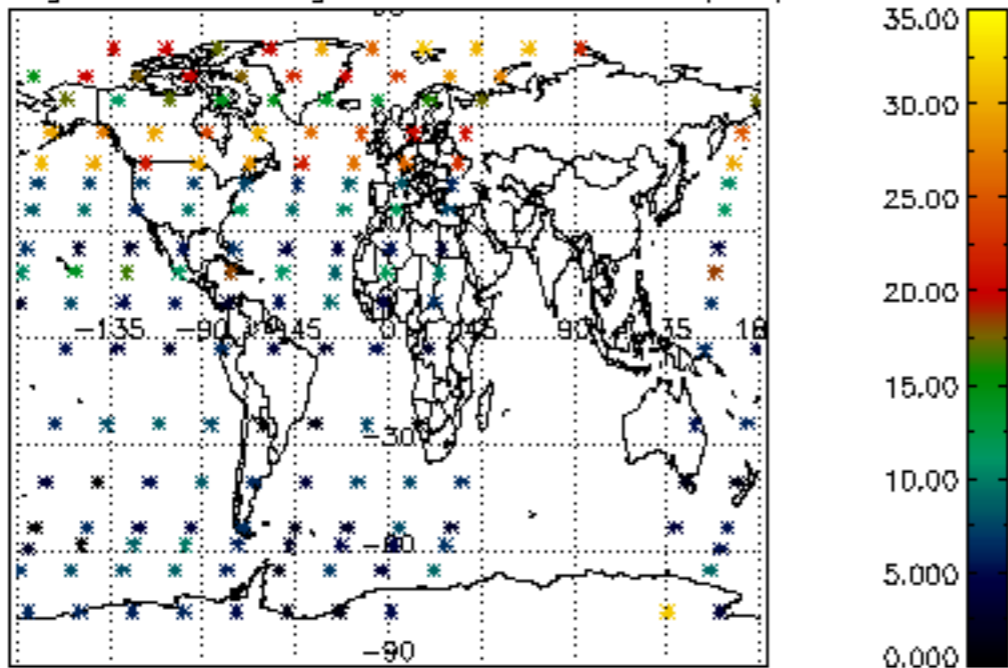
Percentage of cosmic ray hits per profile



Percentage of datation errors per profile



Percentage of star falling outside central band per profile



Percentage of saturation errors per profile

